Government
Publications

SESSIONAL PAPERS.

VOL. XXII—PART IV.

FOURTH SESSION OF SIXTH LEGISLATURE

OF THE

PROVINCE OF ONTARIO.

SESSION 1890.

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LIST OF SESSIONAL PAPERS.

ARRANGED ALPHABETICALLY.

Title.	No.	Remarks.
Accounts (*Dominion and the Provinces*)	66	*Printed.*
Accounts, Public	18	"
Agricultural and Arts, Report	8	"
Agricultural College, Report	24	"
Agricultural and Experimental Union, Report	5	"
Agricultural Societies, Analysis	39	*Not Printed.*
Ardagh, Judge, commutation	44	*Printed.*
Asylums, Report	10	"
Bail, recognizances of	68	*Printed.*
Ballot at School Elections	52	"
Beekeepers' Association, Report	78	"
Bi-lingual teaching	28	"
Births, Marriages and Deaths, Report	4	"
Blind Institute, Report	13	"
Borron's Report	87	"
Canada Temperance Act, where in force	67	*Printed.*
Canadian Institute, Report (*part of*)	6	"
Central Prison contracts	42	"
Common Gaols, Report	11	"
Crown Lands, Report	22	"
Custody of Title Deeds Act	26	*Not Printed.*
Dairy and Creamery Association, Report	49	*Printed.*
Deaf and Dumb Institute, Report	12	"
Departmental Reports, when presented	70	*Not Printed.*
Division Courts, Report	62	*Printed.*
Dogs, Act in force	27	"
Drainage, Tile	31	*Not Printed.*
Dundas and Waterloo Macadamized Road	71	"
Eden, John, claim of	61	*Not Printed.*
Education, Report	6	*Printed.*
do publication of Text Books	1	"
do language in the Schools	2	"
do regulations, French and German Schools	7	"
do orders in Council *re* Department	29	*Not Printed.*
do regulations by Department	30	"

Title.	No.	Remarks.
Education, superannuation Fund	33	*Printed.*
do study of English	34	*Not printed.*
do bi-lingual teaching	28	*Printed.*
do text book history	40	"
do case to Judges	43	"
do correspondence, French Schools	53	"
Elgin House of Industry, Report	41	*Not printed.*
Entomological Society, Report	17	*Printed.*
Estimates	19	"
Factories, Report	35	*Printed.*
Fines and Penalties remitted	68	"
French Schools. See *Education.*		
Fruit Growers, Report	20	"
Gaols and Prisons, Report	11	*Printed.*
German Schools. See *Education.*		
Gosnell *vs.* Swarthout	73	"
Grand River Navigation Co'y	79	"
Health, Report	72	*Printed.*
Hospitals, Report	14	"
Immigration, Report	23	*Printed.*
Industries, Bureau of, Report	80	"
Insurance, Report	3	"
Judicature Act, commutation	44	*Printed.*
Killarney, amount expended	60	*Not printed.*
do licenses granted	86	"
Legal Offices, Report	36	*Printed.*
Legislative Assembly, convening of	70	*Not printed.*
Magdalen Asylums, Report	15	*Printed.*
Mechanics' Institutes, Report (*part of*)	6	"
Mercer Estate	54	*Not printed.*
Municipal Debentures	59	"
Municipal Indebtedness	58	"
Ontario Agricultural and Experimental Farm, Report	24	*Printed.*
Ontario Agricultural and Experimental Union, Report	5	"
Ontario and Rainy River Railway papers	81	"
Ontario Shops Regulation Act, By-laws	38	"
Orphan Asylums, Report	15	"
Ottawa and Parry Sound Railway papers	81	"
Pine Trees, dues on	74	*Printed.*
Police Magistrates, appointment	67	"
Poor and Indigent Persons, relief of	37	"
Poultry Associations, Report	76	"

Title.	No.	Remarks.
Poultry and Pet Stock, Report	77	*Printed.*
Practical Science, Report (*part of*)	6	"
Prisons, Report	11	"
Provincial Revenue	83	"
Public Accounts	18	"
Public Lands Act, grants under	64	"
Public Works, Report	21	"
Queen Victoria Niagara Falls Park, Report	65	*Printed.*
Railway Aid Certificates	85	*Printed.*
do Papers	81	"
Receipts and Expenditures	83	"
Recognizances of Bail	68	"
Reformatories, Report	11	"
Refuge Houses of, Report	15	"
Registrars, Fees of	51	"
Registry Offices, Report	63	"
Revenue, Provincial	83	"
Scientific Societies (*part of*)	6	*Printed.*
Scott Act, where in force	67	"
Secretary and Registrar, Report	84	"
Sheep Act, where in force	27	"
Sheep Breeders' Association, Report	50	"
Shops Regulation Act, By-laws	38	"
Spencer, W. H., appointment of	45	"
Statutes Revised, distribution	25	*Not printed.*
Sugar Beet, Report on	48	*Printed.*
Superannuation	33	"
Surrogate Court, commutation of fees	44	"
Tavern and Shop Licenses, Report	9	*Printed.*
Temperance Act, where in force	67	"
Text Books, publication	1	"
Tile Drainage	31	*Not printed.*
Timber Dues	74	*Printed.*
Title Deeds Act, filings under	26	*Not printed.*
Titles, Master of, Report	69	*Printed.*
Toronto General Trusts Co'y, Report	32	*Not printed.*
Toronto Registry Office, disbursements	46	*Printed.*
Toronto University, debentures issued	55	"
do biological building	56	"
do students attending	57	"
do residence	75	*Not printed.*
do report (*part of*)	6	*Printed.*
do bursar's statement	47	"
Upper Canada College, Report (*part of*)	6	*Printed.*
do Bursar's statement	16	"
Upper Canada Improvement Fund	82	"

LIST OF SESSIONAL PAPERS.

Arranged in Numerical Order, with their titles at full length; the Dates when Ordered and when Presented to the Legislature; the name of the Member who moved for the same, and whether Ordered to be Printed or not.

CONTENTS PART I.

No. 1.. Return to an Order of the House of the sixth day of March, 1889, shewing the names of all publishers of Public School text books, with the respective books published by them and the prices thereof. Also, for copies of all correspondence by or with the Minister of Education or any officer of his Department respecting the price or publication of Public School text books, subsequent to that already brought down. Presented to the Legislature, 4th February, 1890.—*Mr. Preston.* (*Printed.*)

No. 2.. Return to an Order of the House of the eleventh day of March, 1889, shewing the number and location of Public Schools in Ontario in which any language other than English is used in the work of teaching, either wholly or in part. A list of text books in any language other than English used in such schools. The total number of scholars attending each of such schools. The number of scholars in each of such schools using text books in any language other than English. The number of teachers in such schools who cannot use the English language in teaching. Presented to the Legislature, 4th February, 1890.—*Mr. Craig.* (*Printed.*)

No. 3.. Report of the Inspector of Insurance for the year 1889. Presented to the Legislature, 3rd February, 1890. (*Printed.*)

No. 4.. Report of the Registrar-General, relating to the Registration of Births, Marriages and Deaths for the year 1888. Presented to the Legislature, 7th February, 1890. (*Printed.*)

No. 5.. Report of the Ontario Agricultural and Experimental Union for the year 1889. Presented to the Legislature, 7th April, 1890. (*Printed.*)

CONTENTS PART II.

No. 6.. Report of the Minister of Education for the year 1889, with the Statistics of 1888, in which is included the Reports of Mechanics' Institutes, Scientific Societies, Toronto University, School of Practical Science and Upper Canada College. Presented to the Legislature, 6th March, 1890. (*Printed.*)

No. 7.. Regulations and Correspondence relating to French and German Schools in the Province of Ontario. Presented to the Legislature, 31st January, 1890. (*Printed.*)

CONTENTS PART III.

No. 8.. Report of the Council of the Agricultural and Arts Association for the year 1889. Presented to the Legislature, 13th February, 1890. (*Printed.*)

No. 9.. Report on the working of the Tavern and Shop Licenses Acts for the year 1889. Presented to the Legislature, 6th February, 1890. (*Printed.*)

No. 10.. Report upon the Asylums for the Insane and Idiotic, for the year ending 30th September 1889. Presented to the Legislature, 28th February, 1890. (*Printed.*)

No. 11.. Report upon the Common Gaols, Prisons and Reformatories for the year ending 30th September, 1889. Presented to the Legislature, 3rd March, 1890, (*Printed.*)

CONTENTS PART IV.

No. 12.. Report upon the Institution for the Instruction and Education of the Deaf and Dumb, Belleville, for the year ending 30th September, 1889. Presented to the Legislature, 31st January 1890. (*Printed.*)

No. 13.. Report upon the Institution for the Education and Instruction of the Blind, Brantford, for the year ending 30th September, 1889. Presented to the Legislature, 31st January, 1890. (*Printed.*)

No. 14.. Report upon the Hospitals of the Province, for the year ending 30th September, 1889. Presented to the Legislature, 12th March, 1890. (*Printed.*)

No. 15.. Report upon the Houses of Refuge and Orphan and Magdalen Asylums for the year ending 30th September, 1889. Presented to the Legislature, 20th March, 1890. (*Printed.*)

No. 16.. Bursar's Statement of Cash Transactions of the Upper Canada College for the year ending 30th June, 1889. Presented to the Legislature, 18th March, 1890. (*Printed.*)

No. 17.. Report of the Entomological Society for Ontario, for the year 1889. Presented to the Legislature, 31st March, 1890. (*Printed.*)

No. 18.. Public Accounts of the Province for the year 1889. Presented to the Legislature, 11th February, 1890. (*Printed.*)

CONTENTS PART V.

No. 19.. Estimates for the service of the Province until the Estimates for the year are finally passed. Presented 4th February, 1890. (*Not Printed.*) Estimates for the year 1890. Presented 12th February, 1890. (*Printed.*) Estimates for the service of the Province, until the estimates for the year are finally passed. Presented 10th March, 1890. (*Not Printed.*) Supplementary Estimates for the year 1890. Presented 3rd April, 1890. (*Printed.*)

No. 20.. Report of the Fruit Growers' Association for the year 1889. Presented to the Legislature, 24th March, 1890. (*Printed.*)

No. 21... Report of the Commissioner of Public Works for the year 1889. Presented to the Legislature, 18th February, 1890. (*Printed.*)

No. 22.. Report of the Commissioner of Crown Lands for the year 1889. Presented to the Legislature, 12th March, 1890. (*Printed.*)

No. 23.. Report of the Department of Immigration for the year 1889. Presented to the Legislature, 7th March, 1890. (*Printed.*)

No. 24.. Report of the Ontario Agricultural College and Experimental Farm for the year 1889. Presented to the Legislature, 24th March, 1890. (*Printed.*)

No. 25.. Statement as to the disposal of the Revised Statutes of Ontario for the year 1889. Presented to the Legislature, 3rd February, 1890. (*Not Printed.*)

No. 26.. Return to an Order of the House of the eighteenth day of March, 1889, shewing the number of documents filed under the "Custody of Title Deeds Act" up to the first day of January, 1889, and the amount of fees received. And shewing also, the amount paid in each Registration Division for the necessary books as required under the Act. Presented to the Legislature, 4th February, 1890.—*Mr. Wood, (Hastings.)* (*Not Printed.*)

No. 27.. Return to an Order of the House of the 18th day of March, 1889, shewing the Township Municipalities in which the Act to impose a tax on Dogs and for the Protection of Sheep is in force; the number of dogs assessed in such municipalities; the number of sheep killed and injured, and the amount paid for the same by such municipalities for the years 1886, 1887 and 1888 respectively. Also, shewing the municipalities in which a by-law is in force for the assessment of dogs without providing for damages to sheep, and the number of dogs so assessed for the above years, respectively. Presented to the Legislature, 4th February, 1890.—*Mr. Dryden.* (*Printed.*)

CONTENTS PART VI.

No. 28.. Extracts and Statements respecting Bi-lingual teaching in Great Britain, the United States and Canada. Presented to the Legislature 17th February, 1890. (*Printed.*)

No. 29.. Orders in Council, made in the year 1889 under the Revised Statutes of Ontario, 1887, Cap. 224, respecting the Education Department. Presented to the Legislature 6th February, 1890. (*Not printed.*)

No. 30.. Regulations made or revised by the Department of Education during the year 1889. Presented to the Legislature 6th February, 1890. (*Not printed.*)

No. 31.. Statement of the Returns made by Municipalities under the Tile, Stone, and Timber Drainage Act, R. S. O., 1887, Cap. 39, for the year 1889. Presented to the Legislature 6th February, 1890. (*Not printed.*)

No. 32.. Statement of the affairs of the Toronto General Trusts Company under the provisions of 35 Vic., Cap. 83, Sec. 13. Presented to the Legislature 6th February, 1890. (*Not printed.*)

No. 33.. Return to an Order of the House of the thirteenth day of March, 1889, shewing in detail the number of Public School teachers who have accepted the terms heretofore imposed in regard to the Superannuation Fund and have withdrawn one-half of the amount paid in. The number of teachers who

have not accepted the terms, and shewing to what purposes the sums not already withdrawn are devoted, or how funded. Presented to the Legislature 7th February, 1890. *Mr. Blythe.* (*Printed.*)

No. 34.. Copy of a Minute of the Department of Education respecting the study of English in those schools in which the French or German language prevails. Presented to the Legislature 11th February, 1890. (*Not printed.*)

No. 35.. Report of the Inspectors of Factories for the year 1889. Presented to the Legislature 14th February, 1890. (*Printed.*)

No. 36.. Report of the Inspector of Legal Offices for the year 1889. Presented to the Legislature, 3rd April, 1890. (*Printed.*)

No. 37.. Supplementary Return to an Order of the House of the fourth day of February, 1889, shewing the amount paid out from municipal funds, either by direct grants or remission of taxes, in each city, town, village or rural municipality in the Province of Ontario during 1887 or 1888, for the relief of poor and indigent persons, but not including any sum paid for the support of a House of Industry or similar institution; the number of indigents a permanent charge upon any municipality in 1887 and 1888, and the number of such indigents who received temporary aid from municipal funds in 1887 and 1888. Presented to the Legislature 18th February, 1890. *Mr. Clarke* (*Wellington.*) (*Printed.*)

No. 38.. Return to an Order of the House of the twenty-fifth day of February, 1889, shewing the name of the municipalities which have passed by-laws under the authority of the "Ontario Shops Regulation Act," distinguishing between cases where such by-laws were passed without petitions in favour thereof. And shewing also, the date of the passing of each such by-law; the class or classes of shops to which each such by-law applied; the hour at, and the period of the year during which the respective classes of shops were by the by-law required to be closed, and which of such by-laws have been repealed. Presented to the Legislature 18th February, 1890. *Mr. Morgan.* (*Printed.*)

No. 39.. Analysis of Reports of County, Township and Horticultural Societies for the year 1888. Presented to the Legislature 20th February, 1890. (*Not printed.*)

No. 40.. A brief history of Public and High School Text-Books authorized for the Province of Ontario, 1846-1889. Presented to the Legislature 26th March, 1890. (*Printed.*)

No. 41.. Report of the Inspector of the Elgin House of Industry for the year 1889. Presented to the Legislature 20th February, 1890. (*Not printed.*)

No. 42.. Copy of an agreement between the Inspector of Prisons and Public Charities and H. A. Nelson & Sons, relative to the manufacture of brooms at the Central Prison. Also, of Order in Council approved by His Honour the Lieutenant-Governor, the fifteenth day of June, A.D. 1889, authorizing the said agreement. Also, of agreement between the Inspector of Prisons and Public Charities and the Brandon Manufacturing Company of Toronto (Limited), relative to the manufacture of woodenware at the Central Prison. Also, of Order in Council approved by His Honour the Lieutenant-Governor, the thirty-first day of December, A.D, 1889, authorizing the said agreement. Presented to the Legislature 11th March, 1890. (*Printed.*)

No. 43.. Return to an Order of the House of the tenth day of February, 1890, shewing a copy of the Case submitted by the Minister of Education for the opinion of the Judges of the Chancery Division of the High Court of Justice, as to the true construction of certain provisions of the Public School Act relating to Separate School supporters. Also, the answers given by the Judges to the questions submitted by the Case. Presented to the Legislature 24th February, 1890. *Mr. Meredith.* (*Printed.*)

No. 44.. Copy of an Order in Council increasing the commutation of the Surrogate Court fees payable to His Honour Judge Ardagh. Presented to the Legislature 25th February, 1890. (*Printed.*)

No. 45.. Return to an Address to His Honour the Lieutenant-Governor, of the nineteenth day of February, 1890, praying that he will cause to be laid before the House, a copy of the Order in Council appointing W. H. Spencer Police Magistrate for parts of the Districts of Muskoka and Parry Sound, and fixing his salary or emolument, and of the Commission issued to him as such Police Magistrate. Presented to the Legislature 25th February, 1890. *Mr. Marter.* (*Printed.*)

No. 46.. Return to an Order of the House of the twenty-first day of February, 1890, shewing the amount of disbursements connected with the Registrar of Deeds office in the City of Toronto for the year 1889, as follows :—(*a*) To the City of Toronto. (*b*) To the Deputy Registrar. (*c*) To other clerks and assistants. (*d*) For other purposes. Also, shewing the gross earnings of the Registrar for the year 1889, and the total amount received by the Registrar for his personal use ; and also a statement of the expenditure, if any, rendered necessary in consequence of the creation of the second Registrar for the City of Toronto, together with a copy of the report of any committee, or sub-committee of the Council of the City of Toronto shewing the necessity for new buildings for the accommodation of the registry officers, books, papers, documents and like matter relating to said city. Presented to the Legislature 28th February, 1890. *Mr. H. E. Clarke* (*Toronto.*) (*Printed.*)

No. 47.. Bursar's statement of cash transactions of the University of Toronto for the year ending 30th June, 1889. Presented to the Legislature 3rd March, 1890. (*Printed.*)

No. 48.. Report of Robert H. Lawder upon the cultivation of the sugar beet in Ontario. Presented to the Legislature 4th March, 1890. (*Printed.*)

No. 49.. Report of the Dairy and Creamery Association of the Province for the year 1889. Presented to the Legislature 4th March, 1890. (*Printed.*)

No. 50.. Report of the Sheep Breeders' Association of Ontario for the year 1889. Presented to the Legislature 5th March, 1890. (*Printed.*)

No. 51.. Statement of the Returns forwarded to the office of the Provincial Secretary of all the fees and emoluments received by the Registrars of Ontario for the year 1889, made in accordance with the provisions of R. S. O., 1887, Cap. 114, Sec. 100, with which are contrasted receipts of the same nature in 1887 and 1888. Presented to the Legislature 5th March, 1890. (*Printed.*)

No. 52.. Return to an Order of the House of the nineteenth day of February, 1890, shewing the number and designation of School Boards in the cities, towns and incorporated villages in Ontario which have adopted the use of the

ballot at annual school elections under section 103 of chapter 225 R. S. O., with the number of School Boards in cities, towns and villages which have not adopted the ballot for such purposes. Presented to the Legislature 5th March, 1890. *Mr. Clarke* (*Wellington.*) (*Printed.*)

No. 53.. Papers and Correspondence respecting French Schools. Presented to the Legislature 6th March, 1890. (*Printed.*)

No. 54.. Return to an Order of the House of the twenty-eighth day of February, 1890, shewing in detail the amount, if any, paid out by the Crown on behalf of lots 83 and 84 in the 3rd concession south-west Toronto and Sydenham road, being a portion of the Mercer estate ; also, shewing the amounts received for the sale of the same, and copies of all correspondence relating thereto. Presented to the Legislature 10th March, 1890. *Mr. Blythe.* (*Not printed.*)

No. 55.. Return to an Order of the House of the twenty-eighth day of February, 1890, specifying the amount of debentures issued on the credit of the permanent fund of the University of Toronto under the authority of section 5 of chapter 231, R. S. O., the amount realized by the sale of such debentures and the buildings, for the erection or alteration of which the money thus raised has been appropriated, with the estimated cost of the work done, or to be done, on each building. Presented to the Legislature 11th March, 1890. *Mr. Balfour.* (*Printed.*)

No. 56.. Return to an Address to His Honour the Lieutenant-Governor of the twenty-eighth day of February, 1890, praying that he will cause to be laid before the House a Return of a copy of the Order in Council authorizing the erection of the building known as the Biological Building in connection with the University of Toronto. Also, of any resolutions, recommendations or memorials from the Senate or Board of Trustees, asking for the appropriation of money for this purpose out of the permanent fund of the University, and of any contract that may have been let for additions to the building not yet completed. Presented to the Legislature 11th March, 1890. *Mr. Balfour.* (*Printed.*)

No. 57... Return to an Order of the House of the twenty-eighth day of February, 1890, shewing the total attendance of students matriculated and non-matriculated of each sex in University College from 1880 to 1890 inclusive. The number of graduates who have during each of these years lived in the College residence. The number of graduates who retained their rooms in residence during 1888, 1889 and 1890. The receipts and expenditures for the year 1888 and 1889, including list of water, fuel and gas and what proportion of the interior of the building is devoted to residence purposes. Presented to the Legislature 11th March, 1890. *Mr. Wood,* (*Hastings.*) (*Printed.*)

No. 58.. Statement of Returns transmitted by Municipal Councils to the office of the Provincial Secretary of the several debts of the corporation as they stood on the 31st day December, 1889, in accordance with the provisions of Section 382, Cap. 184, R. S. O., 1887. Presented to the Legislature 11th March, 1890. (*Not printed.*)

No. 59.. Statement of Returns transmitted by Municipal Corporations to the office of the Provincial Secretary of the debentures issued by them up to the 31st day of December, 1889, in accordance with the provisions of Section 5,

Cap. 186, R.S.O., 1887. Presented to the Legislature 11th March, 1890. (*Not printed.*)

No. 60.. Return to an Order of the House of the third day of March, 1890, shewing the amount expended in the year 1883, in Killarney out of the appropriation for Colonization Roads, with the dates and items, and persons to whom, and purposes for which the moneys were expended. Presented to the Legislature 12th March, 1890. *Mr. Monk.* (*Not printed.*)

No. 61.. Return to an Order of the House of twenty-eighth day of February, 1890, respecting the claim of John Eden, of Aylmer, for work done in digging wells by direction of Coroner McLay in connection with the enquiry made by him as to the death of one Gilford Williams, who was supposed to have been murdered, and for a statement in detail of all expenditure incurred in connection with the said enquiry, shewing the persons to whom any moneys were paid, and the dates when and the purposes for which the same were paid or expended. Presented to the Legislature 11th March, 1890. *Mr. Meredith.* (*Not printed.*)

No. 62.. Report of the Inspector of Division Courts for the year 1889. Presented to the Legislature 14th March, 1890. (*Printed.*)

No. 63.. Report of the Inspector of Registry Offices for the year 1889. Presented to the Legislature 14th March, 1890. (*Printed.*)

No. 64.. Return (in part) to an Order of the House of the fifth day of February, 1890, giving the dates, number of acres, location or other description of each Free Grant made since the first day of July, 1857, under the authority of section thirteen of "The Public Lands Act," or the like section in force from time to time, with the names of the persons or corporations to whom each of these grants were made, with the purposes for which they were made. Also, all correspondence respecting these grants or any other grants applied for under the said section during the said period. Presented to the Legislature 19th March, 1890. *Mr. Creighton.* (*Printed.*)

No. 65.. Report of the Commissioners for Queen Victoria Niagara Falls Park for the year 1889. Presented to the Legislature 20th March, 1890. (*Printed.*)

No. 66.. Correspondence relative to the Accounts between the Provinces of Ontario and Quebec and the Dominion of Canada. Presented to the Legislature 20th March, 1890. (*Printed.*)

No. 67.. Return to an Order of the House of the twenty-eighth day of February, 1890, shewing the number of Counties in the Province of Ontario, in which the Temperance Act of 1878 was in force on the first day of May, 1885. The number of County Councils to which it was submitted, prior to the first day of May, 1887, a Resolution affirming the expediency of the appointment of a salaried Police Magistrate, in compliance with 48 Vic., Cap. 17, Sec. 1. The names of the Counties in which such resolution was carried. The names of the Counties in which such resolution was lost. Also, number of Counties in which Police Magistrates were appointed under 50 Vic., Cap. 111, Sec. 1. Presented to the Legislature 20th March, 1890. *Mr. McLaughlin.* (*Printed.*)

No. 68.. Return to an Address to His Honour the Lieutenant-Governor of the nineteenth day of February, 1890, praying that he will cause to be laid before the House a Return of all cases in which fines or penalties imposed by

any Court have been remitted, or proceedings for the recovery of them have been stayed by the action of the Executive Government, or any member thereof, and of all cases in which persons liable upon recognizances of Bail have been released from liability or the proceedings against them have been stayed by the like action, with the reasons for the action taken in each case and also for copies of all Orders in Council relating to the said matters. Such Return to include the year 1873 and to continue down to the present time. Presented to the Legislature 24th March, 1890. *Mr. French.* (*Printed.*)

No. 69.. Report of the Master of Titles for the City of Toronto and County of York, under the Land Titles' Act for 1889. Also, Return of Fees received by the Master. Presented to the Legislature 25th March, 1890. (*Printed.*)

No. 70.. Return to an Order of the House of the eleventh day of February, 1890, shewing the dates in each year from 1884 to 1889, both inclusive, on which the Legislative Assembly of Ontario was convened and prorogued respectively. The dates during each Session of the Legislative Assembly on which all the several reports printed by order of the Legislative Assembly were presented during the same years. Presented to the Legislature 26th March, 1890. *Mr. Clancy.* (*Not printed.*)

No. 71.. Return to an Address to His Honour the Lieutenant-Governor, of the twenty-first day of March, 1890, praying that he will cause to be laid before the House a Return of copies of any correspondence between the Ontario and Dominion Governments, or between the former and any Corporation or person, relating to the ownership, sale or lease of the Dundas and Waterloo macadamized road, together with copies of any papers in the possession of the Government relating thereto, subsequent to that already brought down in the year 1886. Presented to the Legislature 26th March, 1890. *Mr. McMahon.* (*Not printed.*)

CONTENTS PART VII.

No. 72.. Report of the Provincial Board of Health for the year 1889. Presented to the Legislature 28th March, 1890. (*Printed.*)

No. 73.. Return to an Order of the House of the twelfth day of March, 1890, of a copy of the Judgment pronounced by the Honourable Mr. Justice Robertson, in an action in the High Court of Justice, wherein John J. Gosnell is plaintiff and Isaac Swarthout and others are defendants, and copies of all correspondence between the License Commissioners for the East Riding of the County of Kent, and the Provincial Secretary or any other member or officer of the Government on the subject of the granting of the licenses which were in question in the said action. Also, copies of all minutes of the Commissioners, with regard to the granting of said licenses, and all reports relating thereto. Presented to the Legislature 28th March, 1890. *Mr. Meredith.* (*Printed.*)

No. 74.. Return to an Order of the House of the nineteenth day of February, 1890, shewing what applications have been made for payments out of the Consolidated Revenue under the provisions of Section 4 of Chapter 4, 43 Victoria, in respect of the dues on pine trees. Also, shewing what is the aggregate sum which, up to the first day of February last, the patentees of lands, subject to the provisions of the Act, are entitled to receive out of the dues collected on pine trees cut after the date of their patents. Presented to the Legislature 28th March, 1890. *Mr. Marter.* (*Printed.*)

No. 75.. Return to an Address to His Honour the Lieutenant-Governor of the twenty-first day of March, 1890, praying that he will cause to be laid before the House, copies of any papers, memorials or petitions addressed to the Lieutenant-Governor in Council, or to any member of the Government, since the late partial destruction of the Provincial University building, for or against the maintenance of a residence in connection with that institution. Presented to the Legislature 31st March, 1890. *Mr. Balfour.* (*Not printed.*)

No. 76.. Report of the Poultry Association of Ontario for the year 1889. Presented to the Legislature 31st March, 1890. (*Printed.*)

No. 77.. Report of the Eastern Ontario Poultry and Pet Stock Association for the year 1889. Presented to the Legislature 31st March, 1890. (*Printed.*)

No. 78.. Report of the Ontario Bee-keepers' Association for the year 1889. Presented to the Legislature 31st March, 1890. (*Printed.*)

No. 79.. Return to an Address to His Honour the Lieutenant-Governer of the twenty-first day of March, 1890, praying that he will cause to be laid before the House a copy of a Petition presented to His Honour the Lieutenant-Governor from the Municipal Corporation of the Village of Cayuga, relating to the Grand River Navigation Company. Also, for a copy of all correspondence relating thereto. Presented to the Legislature 31st March, 1890. *Mr. Harcourt.* (*Printed.*)

No. 80.. Report of the Bureau of Industries for the year 1889. Presented to the Legislature 1st April, 1890. (*Printed.*)

No. 81... Papers and Documents relating to the Ontario and Rainy River Railway Company and the Ottawa and Parry Sound Railway Company. Presented to the Legislature 2nd April, 1890. (*Printed.*)

No. 82.. Documents and papers relating to the Upper Canada Improvement Fund. Presented to the Legislature 2nd April, 1890. (*Printed.*)

No. 83 . Return to an Order of the House of the fifth day of March, 1890, shewing in tabulated form a statement of Provincial Revenue from all sources, for each year since Confederation to the close of 1889, specifying such annual receipts under the various headings used in the Public Accounts of the Province. A similar statement of Provincial expenditure during the same period. Presented to the Legislature 2nd April, 1890. *Mr. Clarke,* (*Wellington.*) (*Printed.*)

No. 84.. Report of the Secretary and Registrar of the Province for the year 1889. Presented to the Legislature 2nd April, 1890. (*Printed.*)

No. 85.. Return to an Order of the House of the fifth day of March, 1890, shewing the amount still to be paid on Railway Aid Certificates issued by the Province, with the dates when the same became due and payable. Also, shewing the amounts of Annuity Certificates issued by the Province with the dates when they become due and payable. Also, an Estimate of the present value of the said Railway Aid Certificates and Annuity Certificates respectively. Also, specifying the amount to be paid on account of principal and interest respectively in each year during the currency of said Certificates. Presented to the Legislature 2nd April, 1890. *Mr. Balfour.* (*Printed.*)

No. 86.. Return to an Order of the House of the twenty-eighth day of February, 1890, shewing the number of Shop and Tavern Licenses granted to persons resident in Killarney in each of the years 1888 and 1889 and the names of the persons to whom they were respectively granted. Also, for copies of all petitions for or against the granting of such licenses or any of them, and of all correspondence between the head, or any officer of the License Branch of the Department of the Provincial Secretary, and any other person on the subject of the granting or working of such licenses, or any of them, and shewing also, the population of Killarney during the same years. Presented to the Legislature 2nd April, 1890. *Mr. Meacham.* (*Not printed.*)

No. 87... Report of E. B. Borron, upon the resources of the northerly part of the Province of Ontario and his explorations therein. Presented to the Legislature 7th April, 1890. (*Printed.*)

NINETEENTH ANNUAL REPORT

OF THE

INSPECTOR OF PRISONS AND PUBLIC CHARITIES

UPON THE

ONTARIO INSTITUTION

FOR THE

INSTRUCTION AND EDUCATION OF THE DEAF AND DUMB

BELLEVILLE,

BEING FOR THE YEAR ENDING 30TH SEPTEMBER, 1889.

PRINTED BY ORDER OF THE LEGISLATIVE ASSEMBLY.

TORONTO:
PRINTED BY WARWICK & SONS, 68 AND 70 FRONT STREET WEST.
1890.

OFFICE OF THE
INSPECTOR OF PRISONS AND PUBLIC CHARITIES, ONTARIO,
PARLIAMENT BUILDINGS, TORONTO, November, 1889.

SIR,—I have the honour to transmit herewith, to be presented to His Honour the Lieutenant-Governor, the Nineteenth Annual Report upon the Institution for the Instruction and Education of the Deaf and Dumb, Belleville, being for the year ending 30th September, 1889.

I have the honour to be, Sir,

Your most obedient servant,

R. CHRISTIE,

Inspector.

THE HONOURABLE J. M. GIBSON, M.P.P.,
Secretary for the Province of Ontario.

CONTENTS.

	Page.
Inspector's summary of the year's operations	9
Minutes of Inspection	10
Examiner, Report of	13
Maintenance expenditures	17
Superintendent's Report	18
Statistical tables	30
Physician's Report	49

ONTARIO INSTITUTION FOR THE EDUCATION OF THE DEAF AND DUMB.

NINETEENTH

ANNUAL REPORT

OF THE

INSPECTOR OF PRISONS AND PUBLIC CHARITIES

FOR THE

PROVINCE OF ONTARIO.

PARLIAMENT BUILDINGS,
Toronto, November, 1889.

To the Honourable SIR ALEXANDER CAMPBELL, K.C.M.G., *Lieutenant-Governor of the Province of Ontario*

MAY IT PLEASE YOUR HONOUR :—

Herewith I beg to submit the Nineteenth Annual Report upon the Ontario Institution for the Instruction and Education of the Deaf and Dumb, Belleville, being for the year ending 30th September, 1889.

I have the honour to be,
Your Honour's most obedient servant,

R. CHRISTIE,
Inspector.

THE INSTITUTION

FOR THE

EDUCATION OF THE DEAF AND DUMB.

In presenting the Nineteenth Annual Report upon the operations of this Institution I have much pleasure in stating that there is abundant evidence of unabated interest on the part of the Superintendent and staff of teachers in the work of instructing the pupils committed to their charge.

During my official visits it has been gratifying to note, in many instances, the steady progress of the pupils in literary attainments as well as in their good manners and more cultivated appearance and bearing generally, as the result of their training in the Institution.

Their instruction in industrial and domestic work, which is of such great importance in fitting the pupils for active efforts in their own behalf is thoroughly attended to. And all the means at command in the Institution are employed to afford them the best opportunities for acquiring useful knowledge and training in such employments.

By a perusal of the Superintendent's Report, which follows, it will be noted that his recommendation in this regard, if adopted, would materially increase the lines of instruction in the Institution, and could afford the active in mind and body better chances for self-support in after life. This would, no doubt, result from instruction in the art of printing, which he recommends, in the event of a thorough training in that employment being one of the branches taught pupils who have aptitude for it. Many other matters of importance with the view of increasing the efficiency and advantages of the Institution are discussed, and of those already adopted, it may well be hoped that no small measure of interest and benefit will accrue from granting certificates for good conduct and general efficiency, and diplomas to those pupils who after a full course of instruction graduate satisfactorily.

The system established in recording the attainments of the pupils from year to year and their conduct throughout is such to insure that no certificate or diploma will issue unless the award is fully merited and a knowledge that these marks can only be obtained by diligence and proficiency will, no doubt, stimulate the pupils to increased exertion and zeal in prosecuting their studies, and such evidence of literary or other acquirements will be of service to those who obtain them when starting out for themselves.

My notes of inspection for the year under report are as follows:

I annex copies of the various minutes made by me after my visits of inspection. In them, matters of detail are referred to which cannot well be commented on in a general report:—

"I made a statutory inspection for the Deaf and Dumb, Belleville, on the 20th and 21st of November, 1888. There were then in residence 131 girls and 98 boys; in all 226 pupils under instruction.

"The work of the session appeared to be progressing favorably, due attention being given both by teachers and pupils to the work in hand.

"The condition of the building was satisfactory throughout; the dormitories were in good order, especially on the boys' side; the beds were neat and clean and tidily made up. General good health prevailed, and up to the time of my visit only one case of a serious nature had occurred from the beginning of the term in September.

"The Superintendent informed me that the pupils were orderly, and I could see that excellent discipline prevailed.

"I note with regret that owing to the severe and protracted il'ness of Miss Robinson, who has been Matron, that she has had necessarily to resign her position; and but for her ill-health she would have no doubt been able to fill the position in a most satisfactory manner. In consequence of the resignation of Miss Robinson, Mrs. Craig, Assistant Matron of the London Asylum, has been transferred to the Institution at Belleville, and has been on duty there two weeks.

"The general appearance of the Institution bore testimony to her care, and promises well for efficient service."

"I again made a visit to the Institution for the Deaf and Dumb, Belleville, on the 6th and 7th of June, for the purpose of making a general inspection; also, with a view of conferring with the Superintendent about some improvements which necessarily have to be made during the vacation term.

"The principal of these is the refitting of the laundry with improved machinery, and the repairing or replacing of the range in the kitchen.

"Up to the time of my visit, there had been registered in the books of the Institution since the opening in 1870, 791 pupils; and on the day of my visit there were in actual residence 227—133 boys and 94 girls. The pupils were all seen on various occasions during my stay, and they had a healthy and comfortable appearance; three or four of the boys only were absent from the classes on account of slight ailments. Both boys and girls were nicely clad, and I was present at several of the meals served, good order and decorum prevailed; the food, although plain, was wholesome and good, and quite sufficient for the wants of the children.

"Every part of the Institution was visited and found in good order, with cleanliness prevailing. The dormitories were all well aired; the bedding presented a neat and tidy appearanee; a cheerful and homelike aspect prevailed in all the living rooms, and the class rooms were bright and inviting. The kitchen and other parts of the building used for domestic purposes, indicated good management.

"In the basement immediately under the kitchen, there was an unhealthy odor, arising from waste water, in scrubbing the kitchen floor, leaking through and falling upon a net work of steam pipes to the earth floor beneath. I am of the opinion that the water resting on the floor is due to imperfect drainage, and, to

remedy the matter it may be necessary to put down a double, close matched floor in the kitchen, and a concrete floor in the basement, as well as to provide for better drainage to carry off the waste water.

"The laundry machinery being worn out, an appropriation was made for replacing it; plans and statement of cost for new machinery, mangle, wringer, drying room, etc., were obtained, and an agreement made to place the necessary machinery in position. The kitchen range is worn out, and the cooking of the establishment for months past has been done with difficulty; the replacing of the cooking apparatus and getting it in proper order will be attended to before the session begins.

"During vacation general repairs will be made inside the building, and the carpenter and his assistant will be kept busy laying new floors in the chapel, laundry, and in the girls' west dormitory, the reception room, officers' dining room, parlor and matron's room, with a few other repairs and fixing up generally, after which the usual cleaning is effected while the pupils are away.

"The Public Works Department will be requested to add a new room and refrigerator, as the present one is faulty and in no respect answers the purpose.

"The farm and garden give promise of a good crop, and immense improvements have been made in the appearance of the farm surroundings by the painting of the out-buildings and fences; this work has been well done by the male pupils.

"While at the Institution, the working of the recently erected fire escapes was tested; at a given signal, the lower ladder was let down and the girls began coming out of the upper or fourth storey windows and ninety-seven of them reached the ground in 5½ minutes; on the boys' side, in a like manner 127 boys reached the ground in 9½ minutes. In neither cases did there appear to be the slightest hesitation in descending; they appeared to be familiar with and enjoyed the exercise.

"Two hose companies, composed of deaf lads, were also marshalled for the purpose of testing their speed in getting to the hydrants, and in view of the disability under which they labor, both companies showed commendable swiftness and readiness in throwing streams of water on the roof of the Institution.

"Mr. T. Burrows, Inspector of Public Schools for the county of Lennox, arrived at the Institution while I was there, ready to commence the usual annual examination of the literary classes. The Superintendent reports that the officers, teachers and employees have peen working industriously, and have given general satisfaction; and good progress has been made in acquiring literary knowledge in the class room, and in several branches of the industrial work this has been done, especially in the shoe shop department where quite a number of pupils have made very satisfactory progress. Many of them will be able shortly to earn competent living if they choose to follow it entirely."

"I made another regular inspection of the Institution of the Deaf and Dumb at Belleville, on the 9th, 10th, 11th and 12th of October.

"On the evening of the 9th, I visited the study rooms of the pupils, where they were in charge of the Supervisor, learning their lessons for the following day. They were all quiet and orderly, and seemingly interested in their work.

"On the 10th the Honorable the Treasurer came to the Institution and, in company with the Superintendent, all the class rooms and various parts of the buildings were visited. Order and attention prevailed and the pupils appeared anxious to receive instruction. The ordinary every-day exercises were being pro-

ceeded with, and the answers given by the pupils were such as to show that they thoroughly understood the lessons taught. The proficiency in composition, construction of sentences, arithmetic and geography, was exceedingly creditable, and in many instances quite equal to the efforts of hearing and speaking children of the same age. Our visit to the articulation class room was particularly interesting. Scholars of different grades were examined and so far as they have been taught, gave evidence of careful training. They read the lips readily and their articulation, though in some cases harsh and grating, was plain and easy to understand. The training class room was also visited, and the industrial departments, in each of which the same earnest attention was observable.

"I was present on several occasions when the meals were being served, and saw that the best of order and decorum prevailed. The food was good and properly served.

"There were 239 pupils on the roll—107 girls and 132 boys—38 of whom were new scholars—21 girls and 17 boys. In addition to the foregoing, 25 others had been awarded admission to come later on, or at the beginning of next session. Some of the new pupils appear under the regulation age of seven and are small of their age and young in appearance; but they are all certified as of the required age, others are from 18 to 22 years and have been retained at home in consequence of their parents, in some cases, declining to make a declaration before a Reeve of their inability to pay for their children's instruction. Pupils who commence so late cannot be expected to make the headway which younger entrants do, and but little can be expected from them for the first session at least. The pupils taken all together are very intelligent in appearance, and they are all in good health and neatly and comfortably clad. The dormitories were found to be in excellent order throughout, the beds were trim and neat, the bedding clean and the rooms well ventilated and cheerful and homelike in appearance. The sitting rooms also were neat and tidy, as were all the other departments of the Institution.

"The new range lately put in the kitchen was reported to be giving good satisfaction. The new laundry also is a great improvement on what was in use before. The mangle and drying room were giving the best of satisfaction, and the cylinder washers were also doing good work, but either on account of not being properly placed or from some defect in the pulleys or shafting a very loud and disagreeable noise was made and the contractor will be notified to remedy this defect.

"During the summer months the main building was repaired, painted and kalsomined, the hallway, the reception room, superintendent's and bursar's offices, teachers' parlor, dining room and the matron's quarters were newly papered and now present a handsome appearance; the chapel is also much improved by a new floor and a re-arrangement of the seats. The refrigerator building is now ready for the refrigerator, and this arrangement will no doubt prove to be a great benefit when completed. The hot water apparatus is now in working order for heating the superintendent's house, and the test made shows that it will give entire satisfaction. These additions have been made by the Department of Public Works.

"Owing to the unfavorable season, the supply of vegetables will not be so abundant as formerly, and the potato crop is specially deficient. The stores and books in that department were examined and found to be satisfactory.

"Altogether, my inspection was a pleasant one, as I could find but little to find fault with and much to commend, and I have therefore pleasure in express-

ing my satisfaction with the general good management of the Institution, both in its educational and domestic concerns."

A copy of the report of Mr. Burrows, Inspector of Public Schools, Napanee upon the result of his examination of the literary classes is appended :—

I have the honour to submit my report of the examination of the classes of the Institution for the Deaf and Dumb.

On receiving your notice of my appointment as examiner, I at once saw the superintendent, who very courteously informed me in regard to the work required, and kindly promised to render me all the assistance necessary in the discharge of my commission. He suggested that I should spend a day visiting the class-rooms in order to get a general idea of the scope of the work, and the manner in which it is done. I very gladly fell in with this suggestion, and found the information gleaned during this day's visit extremely valuable in my work afterwards. On completing this tour of general observations, I began to understand to some extent, the almost insurmountable difficulties experienced by the teachers of deaf-mutes, especially in the matter of written language.

The use of every word must be fully and frequently illustrated, and to give the pupils anything like an extended vocabulary and a knowledge of idioms, requires the highest degree of skill and patience. It is, therefore, no wonder that a strange word or varied form of expression serves to bewilder them; keeping these difficulties in mind, it is really wonderful what has been accomplished by the painstaking and devoted teachers of this Institution, directed and encouraged by the able and energetic superintendent.

In passing through the various class-rooms, I was greatly pleased with the excellent order and close attention which prevailed, and the evident anxiety of teachers and pupils to make the best of the opportunities offered for work.

It was delightful, too, to notice the kind and sympathetic interest evinced by the teachers in these "Children of Silence."

The rooms were very tidy and tastefully decorated with pictures, charts, etc., not merely for æsthetic effect, but because the pictorial element is very largely employed in the instruction of the deaf. The uniform excellence of the writing and spelling surprises every one, a misspelled word being quite a rarity.

It seems to be the constant aim of the teachers to develop in their pupils a spirit of selfreliance and the success which has attended their efforts in this line is truly wonderful. In the higher classes, where we may look for the accumulated results of and effects, the work of the pupils in mental and written arithmetic, geography, history, composition, incorporation of words, correction of errors in language, and the translation of mimic language into written, reflects the highest credit on all concerned. As showing how thought and invention are developed, I select two illustrations. In one of the lower classes among the names asked for was, "State defence." This had not been taught, but several children at once gave "State care," that which cares for or protects the state. In Mr. Deny's room where a great deal relating to natural history is taught, to the question, "What do the works of nature show?" several gave the beautiful answer, "The thoughts of God," an answer which had not been taught and one which breathes the very essence of poetry. They had not read Milton "What of Earth."

"Be but the shadow of Heaven and things therein,
Each to other like, more than on earth is thought."

Among the many admirable features of this Institution one cannot fail to notice the excellent moral tone, the result of that truly religious (not sectarian) and moral training given by the superintendent and teachers. To this training I infer, must be largely due the success of the mild discipline which prevails throughout this Institution.

The superintendent kindly gave me an opportunity of inspecting specimens of drawings and needle work which deserves high commendation. Much of this work shows the great capabilities of many of the deaf-mutes in the artistic line. The drawings of Mr. Hadden, a deaf-mute, would do credit to any school of art.

I was glad to see that the problem of industrial education has been solved as far as this Institution is concerned. Shoemaking, carpentry and tailoring being successfully taught.

Appended are notes of the examination of each class and tests showing individual standing.:

In the higher classes I found that the subjects of temperance and hygiene were very effectually dealt with, thinking that the pupils interest in these subjects might be still further stimulated by seeing Yaggys' anatomical charts, I took advantage of an opportunity offered to exhibit them. Mr. Coleman gave a full explanation in the sign language, and all appeared to be greatly delighted. Mr. Green in his inimitable pantomime style also largely assisted to amuse and instruct this rather unique audience. Through the kindness of the superintendent I had the pleasure of attending the religious services in the chapel on Sabbath. These services were extremely interesting, and I am sure they must be highly conducive to the development and moulding of the moral and religious nature of all who participate in them. The superintendent's Bible class was largely attended and great interest manifested in the lesson. From members of the articulation classes he received answers *viva voce*. In addition to the usual exercises I must not forget to mention the beautiful rendition in the sign language of "Nearer my God to Thee" by Mr. Green and a class of little girls.

In concluding these general remarks, I have to express my deep obligation to the superintendent and teachers for their uniform courtesy and valuable assistance which rendered my work a real pleasure. I cannot forbear expressing the opinion that the present prosperous condition of this Institution is very largely due to the great administrative ability of the superintendent. Evidence of his management, tact and energy may be seen in every department.

Your obedient servant,

F. BURROWS.

The Articulation Classes.

Miss Mathison has charge of these classes, seven in number, comprising in all thirty-six pupils. The results which she has achieved seem to me to border on the marvellous. Children who never heard a word are enabled by rare skill and persistent effort on the part of the teacher, to read aloud, answer questions, orally about the lesson, and by means of lip reading to readily understand what is said by their teacher.

Class A.

The beginners in this room, under Mr. Beaton, appear to be well acquainted with the work gone over. Most of them are bright, quick children and give promise of doing excellent work. All did extremely well especially in giving names and forming plurals.

Class B.

The majority of this class appear to be on rather a low intellectual plane. Seven were unable to count out ten crayons. The three young men in the first division are making fair progress. Mr. McKillop, the teacher, is capable of doing good work if he had the right sort of material. He shows skill in drawing pictures of various objects for use in his class.

Class C.

This class is doing excellent work under Mr. Green. Mr. G. is a wonderful pantomimist, and makes his pupils very ready and proficient in the sign anguage.

Class D.

A class of seventeen under Miss Mabee. The work of this class was rather dissapointing. In slate arithmetic only five did well, and six did nothing at all. In the other work most of them got low standing.

Class E.

Eighteen present under Miss. Bull. I am much pleased with this class. Excellent work is being done.

Class F.

Ten present under Mr. Terrill. The class is divided into three divisions. The teacher has rather poor material to deal with, but gets fair results.

Class G.

Twenty present under Mrs. McGillis. Very few in this class took a good standing. Noticed pupils making signs while undergoing examination, most of them did poorly, especially in the incorporation of words.

Class H.

Nineteen present under Miss Ostrom. Got excellent work from this class in everything submitted for examination, work of pupils very neat.

Class I.

Miss Templeton got excellent work in everything from this class. The letters (on paper) are models of neatness and accuracy.

Class J.

Twenty-four pupils under Mr. Ashley. This class did exceedingly well in everything. Particularly well up in geography, temperance and hygiene. Both teacher and pupils appear very ambitious. Got some admirable letters from this class.

Class K.

Nineteen present under Mr. Denys. Found excellent work done in this room. Pupils are exceptionally proficient in language and history. Got excellent composition and letters on paper from this class.

Class L.

Sixteen present under Mr. Coleman. The majority of this class have received an excellent education. In every subject decided evidence is seen of thorough and systematic training. The arithmetic deserves special mention. I got from this class some fine specimens of translation from the sign language into the written.

MAINTENANCE EXPENDITURES.

The cost of maintaining the Institution during the year under report and the preceding year is shown.

	Total expenditure year ending 30th September, 1888.	Weekly costs per head.	Yearly costs per head.	Total expenditures year ending 30th September, 1889.	Weekly costs per head.	Yearly costs per head.
	$ c.	c. m.	$ c.	$ c.	c. m.	$ c.
Medicine and medical comforts	148 05	1.2	62	173 27	1.4	76
Butchers' meat, fish and poultry	3,837 69	31.0	16 13	3,809 00	32.2	16 70
Flour, bread, etc.	2,050 55	16.5	8 61	2,125 49	17.9	9 33
Butter	2,730 24	22.0	11 48	2,445 95	20.6	10 73
Groceries	2,245 38	18.1	9 42	2,546 44	21.4	11 17
Fruit and vegetables	680 77	5.5	2 86	496 48	4.2	2 18
Bedding, clothing, and shoes	742 09	6.0	3 12	871 85	7.4	3 82
Fuel	4,047 99	32.7	17 01	3,377 60	28.4	14 82
Gas, oil, etc.	1,404 16	11.4	5 90	1,234 89	10.5	5 42
Laundry, soap and cleaning	403 60	3.2	1 70	311 07	2.6	1 36
Furniture and furnishing	786 53	6.4	3 30	414 78	3.4	1 87
Farm, garden, feed and fodder	843 15	6.8	3 54	504 43	4.4	2 21
Repairs and alterations	1,077 58	8.7	4 53	1,428 28	12.1	6 26
Printing, postage, stationery and advertising	714 79	5.7	3 00	874 01	7.5	3 83
Books and educational appliances	625 62	5.1	2 63	428 68	3.6	1 88
Miscellaneous	880 16	7.2	3 70	840 14	7.0	3 68
Salaries and wages	18,749 28	1.51.5	78 78	19,203 33	1.61.9	84 23
Totals	41,967 63	3.39.0	176 33	41,085 69	3.46.0	180 20

Average number of pupils for 1888, 238; average number of pupils for 1889, 228.

The reports of the Superintendent, the Physician, and the usual statistical tables are to be found in the following pages.

REPORT OF THE SUPERINTENDENT OF THE ONTARIO INSTITUTION FOR THE DEAF AND DUMB.

Belleville, September 30th, 1889.

R. Christie, Esq.,
Inspector of Prisons and Public Charities for the Province of Ontario:

Sir,—In presenting the nineteenth annual report of this Institution it gives me pleasure to record its continued prosperity, and to know that our work is appreciated by the pupils, their parents and the public generally. Your minutes of inspection and the statement of the educational examiner are full and exhaustive of the general scope of our operations. Our daily routine has been much the same as in former years, but with the increased experience of teachers and officers more and better results have been obtained.

Much has been said and written lately in England, France and other countries about the best methods of educating deaf children, and the outcome of the agitation was the holding of a Convention in Paris, and the appointment of a Royal Commission in England to enquire into the matter.

The Paris International Convention.

Taking advantage of the attractions created by the great world's exposition in Paris, the deaf of that country, or their representatives, issued circulars calling a convention of those specially interested in the education of the deaf to meet in that city during the month of July last. The meeting was to possess an international character, and hence invitations to attend were sent to the principals of all the institutions in America, and others known to be concerned in such a movement. The circular reached me at too late a date to permit arrangements being made for sending a delegate to represent this Province, and for the same reason a number of institutions in the United States were unrepresented. The delegation from that country, however, was quite large, and included some of the most experienced and best informed teachers and graduates from the principal schools for the deaf. The meetings of the conference, though interesting in some respects, fell far short of the expectations of many of the visitors. The American delegates, especially, were quite dissatisfied with the general results, and returned fully convinced that, for all practical and necessary purposes, the system of deaf-mute instruction that finds favor in the United States and Canada is far superior to the European systems. I may mention that in France, at present, the purely oral system of instruction prevails. In the Paris institution, especially, this method is very rigidly enforced. The use of signs is prohibited, and the exclusive employment of hearing and speaking teachers insisted upon. This school has a history that reaches back to the eventful career of the Abbé de l'Epée and others of world-wide fame in the instruction and direction of the deaf. For many years it was conducted under the combined system, and with the most beneficial results. Recently, however, innovations have been introduced, and at present, as stated above, lip-reading is the only source of instruction. Prof. Bishop, of the New York institution, made a thorough inspection of the work done in this school. He entered upon his task strongly prejudiced in favor of the oral system, and his judgment must, therefore, be accepted as fair and impartial. He was satisfied

with the results shown in the junior classes, but reluctantly confesses that the seniors did not meet his expectations. The general knowledge possessed by the older students, and their ability to use that knowledge to the best purpose in life, cannot be compared with that shown by similar classes in the American institutions. Other members of the delegation from the United States made visits to, and inquiries into, the systems in vogue in France and elsewhere on the continent of Europe, and their testimony is sufficient to confirm my belief that, in the combined system, we have the most rational and successful method of deaf-mute instruction. This system prevails in the Ontario Institution, and the object of all concerned is to keep the work abreast of the highest development in the education of the deaf. I am fully satisfied that we can show as good results, all things considered, as the best schools for similar purposes in the United States, where the same system almost entirely is in operation. Our teachers are as competent and earnest as can be procured anywhere, and our schoolroom exercises show that our pupils, on the whole, obtain a good English education, and are well prepared to take their places in the work of life. The following is our course of study :—

FIRST GRADE.

Manual Alphabet.

Nouns:

The objects in use in the class room; parts of the body; house furniture; most common animals; names of persons; divisions of time, as day, night, morning, evening, noon; directions, as east, west, north, south; natural phenomena, as cloud, hail, snow, rain, etc.

Number:

Singular and plural of nouns taught.

Adjectives:

Common, as good, bad, old, etc.
Color, etc.
Numerals, as one, two, three.

Conjunction:

"And."

Pronouns:

First, second and third persons singular.

Verbs:

To express simple actions, using the words with which they are familiar.

Notation:

Counting to 500 by objects.

Penmanship:

Every day.

SECOND GRADE.

Review Class "A" thoroughly.

Substantives:

Articles of furniture, and parts of the body of quadrupeds, birds, fish, etc.
Names of articles of every-day use.

Adjectives:

Qualitative, as high, low, beautiful, etc.
A, an, the, some.
Cardinal and Ordinal.
Demonstrative, as this, that, etc.
Possessive, as my, her, etc.
Form and dimension, "a piece of."

Pronouns:

Personal pronouns, as taught.

Verbs:

Actions relating to objects, the names of which are known to the pupils.
Present progressive, past tense.

Grammar Exercises:

Simple and compound actions described.

Arithmetic:

Simple addition and subtraction—Practical examples.
Mental addition and subtraction.
Express a number consisting of four figures.

THIRD GRADE.

Substantives:

The different classes of artisans, the articles made by each, their use, etc.

Arithmetic (Simple):

Addition and subtraction, multiplication tables.
Mental addition and subtraction.
Miscellaneous questions.

Grammatical Exercises and Composition:

Description of pictures.
Questions and answers by pupils.
Letter writing.
Simple eliptical sentences.

Geography:

Divisions of land and water.

Adjectives, Verbs and Conjunctions (Incorporation):

Regular comparisons with "more" and "most." Distributives, each, every, either, neither.
Present, past, past progressive and future tenses.
"Or" and "nor."

Penmanship:

Twice each week.

FOURTH GRADE.

Arithmetic:

Addition, subtraction and multiplication with simple practical examples. Roman numerals to 1,000. Time lessons.
Mental addition, subtraction and multiplication.

Language:

Temperance notes.
Changing from active to passive voice.
Common adverbs.
Object lessons (see list).
Talks and Stories to page 50.
Incorporation of different kinds of words.
Simple eliptical sentences.
Letter writing.
Questions asked and answered by pupils.
Describing what was done on certain days.
Tenses, present, past, future, perfect, present and past progressive.

Geography:

Divisions of land and water (reviewed), counties, chief towns in each county, cities of Ontario.

Penmanship:

Twice each week.

FIFTH GRADE.

Geography:

Definitions—Divisions of land and water reviewed.
Province of Ontario, counties, cities, county towns, chief towns and physical features.
General idea of the Dominion of Canada.

Arithmetic:

Review work completed thoroughly, with division.
Simple analysis.
Reduction—Canadian money.
Mental arithmetic, addition, subtraction, multiplication and division.

Grammatical Exercises, Language Lessons and Composition:

Pronouns, adjectives, adverbs and common conjunctions (incorporation).
Changing from active to passive voice.
Object lessons (see list).
Natural history.
Talks and Stories to page 132.
Miscellaneous questions.
Temperance and hygiene.
Letter writing.
Questions and answers by pupils.

Penmanship:

Twice each week.

SIXTH GRADE.

Arithmetic:

Simple rules, with practical examples.
Reduction, Canadian money, avoirdupois weight, long, dry, liquid and time measures, and miscellaneous table, mental arithmetic, first four simple rules and analysis.

Grammatical Exercises and Composition:

Incorporation of different words embracing different parts of speech.
Sweet's Lessons, No. 4.
Temperance notes.
Letter writing.
General conversation.
Object lessons (see list).
Questions and Answers by pupils.
Dictation in sign language to be reproduced in writing.

Geography:

Definitions.
Divisions of land and water.
Dominion of Canada; physical features; exports, where found, and where probably sent; imports, where from.

Canadian History:

General events.

Penmanship:

Twice each week.

SEVENTH GRADE.

Arithmetic:

Addition, subtraction, multiplication, division and analysis of fractions, simple interest, square and cube measure, promissory notes and receipts, accounts.

Language and Composition:

Incorporation of words and phrases.
Changing from narrative to conversational form and *vice versa* (using inverted commas).
Changing simple sentences into compound and complex.
Writing notes and letters from sign dictation.
Temperance notes.
Letter writing.
Reproduction by dictation and sign language.

Canadian History:

From 1812 to present time.

Geography:

The United States, New Mexico, West Indies, Central America, South America and British Isles.

Penmanship.

The Paris Convention, while disappointing in some respects, has served a good purpose in provoking comparisons and discussions that must ultimately benefit the deaf generally. It is proposed to hold a similar convention in New York in 1892, when, if we are spared to participate, the results of the American system will be triumphantly exhibited. The word "American" in this connection applies to Canada as well as the United States.

The Royal Commission.

Increased interest in the education of the deaf in the United Kingdom resulted in the appointment of a Royal Commission to enquire into, and report upon the present and prospective condition of the blind, the deaf, etc., by command of Her Majesty the Queen. This investigation was no doubt the outgrowth of a discussion of much importance caused by the publication of Dr. A. Graham Bell's theory of a deaf-mute race resulting from the intermarriage of deaf persons, and his radical views upon articulation, both of which I have referred to in former reports. Dr. Bell's theory had evidently influenced public opinion in Great Britain on this subject to a considerable extent, and the Commission began the investigation with strong feelings on the side of oral instruction and the interdictment of the deaf-mute marriages. Their report has been published and presented to both Houses of Parliament. Its contents are interesting and evince a thorough performance of duty on the part of the Commissioners. In the face of such indisputable evidence as has been, and can be produced to prove the contrary, some of the conclusions are very strange, and will be vigorously combatted by an active and intelligent minority in that country. The best authorities on this continent, while freely according to Dr. Bell a full meed of praise for what he has accomplished in behalf of the deaf, do not concur in his contention concerning the propagation of a deaf-mute race by the means mentioned, and almost unanimously dispute the supremacy of a purely oral system of instruction.

That accurate information might be obtained concerning the issue of marriages among the deaf in this Province I sent a letter to every editor, which was kindly inserted in their publications, asking for the names of married deaf persons having children. I learned of twenty-seven couples who have 71 children; 70 of these children *can hear and speak and only one is congenitally deaf and dumb.* Another case was reported where a boy became deaf at two years of age whose mother had lost her hearing at four. From the foregoing the fair

deduction may be made that as far as Ontario is concerned, the liability of a deaf race is very remote. An excellent medical authority submits that "there are plenty of other marriages which it would be to the interest of the public to discourage if this course were likely to be productive of any tangible result, which we fear it is not. Take for example, the too frequent marriages between persons distinctly tubercular or epileptic. More harm is done by marriages of this class in a single year than in all probability results from the marriage of deaf-mutes and consanguineous marriages in a century. Yet it is impracticable to intervene for reasons which are but too obvious. We see no reason to anticipate that a policy of discouragement is likelier to bring about the desired change in one case than in the other. The impossibility of useful interference in this direction is to be inferred from the fact that non-marriage does not of necessity imply non-production, so that nothing short of sequestration could prove of the slightest service in preventing the bringing into the world of congenitally deaf children. This tendency is a curious illustration of the law promulgated by Darwin of the proneness of abnormalities to reproduce themselves under certain conditions of selection which appear to operate in this case inversely to the general rule, in virtue of which such departures from the normal are stamped out in consequence of the innate repugnance on the part of the well formed and healthy to ally themselves with individuals who do not conform to the usual standard. In any case these unfortunate people are in many respects much more advantageously situated than the blind. With some trouble and patience they can be enabled to hold intercourse with their fellow mortals and so participate in the life which is around them, and the very fact of our powerlessness to prevent the reproduction of children laboring under these disabilities invests the question of their education with a special and peculiar importance." It is quite impossible for me to give here a full summary of the report of the Royal Commission. There are many valuable suggestions for the education of deaf children, and no doubt a revolution in this respect will soon be observed in Great Britain. Some of the main provisions are epitomized as follows: The Education Act to be extended to the deaf, and power to be obtained to enforce the compulsory attendance of children at a proper school up to the age of 16. Children unable to attend school to be provided for by annual grant as would be equivalent to the contributions now allowed to be paid by Boards of Guardians. Independently of the position of the parents a capitation grant not less than half the cost of the education of the child, with a maximum grant of £10, should be given for all in the same way as ordinary elementary schools, and that in all cases parents should contribute according to their ability. That the age of entry should, as far as possible, be seven; that the school attendance should be compulsorily enforced for at least eight years; and that power should be given to the local authority to pay the rail fare of children when necessary. That in all schools the general health, etc. of children should be periodically inspected by a medical practitioner. That technical instruction in industrial handicraft should be a part of the curriculum after the age of 12, and that this training should be continued to 16. That a special code for the deaf be issued, and that drawing, wood-carving, or modelling be made part of the regular curriculum of instruction for both sexes. That every deaf child should have full opportunity of being educated on the pure oral system; all who are physically or mentally disqualified for such training may be removed from the oral department of the school, or taught elsewhere on the sign or manual system. The children to be classified according to their ability. That there should be teachers in the proportion of one to eight or ten pupils in the pure oral schools, and of one to 14 or 15 in sign and manual schools, (a wise provision). That in institutions the principal or head master should reside in

the school; the inspectors to be selected by the Education Department and to be fully qualified by a knowledge of the systems of instructions practised both at home and abroad; the teachers to be properly qualified; the schools to be properly furnished with all the appliances necessary; the inspectors to report regularly on the knowledge of written language, speech, and the general efficiency of the schools under whatever system; the examination by the inspectors to be the means for merely testing the general progress of the scholars; the different methods or systems of teaching to be left free from the control of the inspector, so long as the results in written or spoken language is satisfactory. That, except in schools where the sign and manual system is exclusively used, all the teachers should be in possession of all their faculties, and have had previous experience in teaching hearing children; that trained teachers of the deaf should receive salaries such as would induce teachers of special attainments to enter the profession, and on a higher scale than those enjoyed by trained teachers of ordinary children. That there should be one uniform schedule of enquiry of the deaf for the census returns of the whole of the United Kingdom; that the class should be spoken of as "the deaf"; and that the terms "deaf-mute," and "deaf and dumb" should be strictly applied to such only as are totally deaf and completely dumb; that the deaf and dumb should be kept as far as possible from being a class apart, etc.

There are many valuable suggestions for a proper education of the deaf in these provisions. They indicate a great change in the system hitherto prevailing in Great Britain, and show conclusively that American ideas and results have exercised a powerful influence upon the Commissioners. Six members of the Commission formulated objections to several of the recommendations. These objections refer to the use of signs, the co-education of the sexes, and consanguineous marriages. Messrs. Owens and Sleight declare that the evidence of missionaries in England, who work among the adult deaf and dumb, is that "the oral method breaks down in after life, and its pupils not unfrequently resort to writing or the manual alphabet." They also assert that, from what they themselves have seen in visiting the various schools and institutions in the United Kingdom, with few exceptions, and those chiefly semi-mute or semi-deaf, the articulation and lip-reading of pupils taught under the purely oral method are so poor as to be practically of little value to them in their intercourse with the general public." They quote from the testimony of Dr. Gallandet, President of the Deaf-Mute College at Washington, as follows: "It is by the practice of the combined system that the greatest advantage to the greatest number may be secured." This declaration, they think, should receive the greatest attention, considering the high authority from which it emanates. They are also of the opinion that undue weight has been attached to the evidence of Dr. A. Graham Bell, and declare, "we yield to none in our high appreciation of that gentleman's great ability and integrity of purpose, but we submit that his conclusions as to methods of education must of necessity be based upon *theory* rather than experience, as he himself admits that he only had a school for two years, and the number of pupils in it was limited to four." They regret that more prominence has not been given in the report to the evidence of Right Hon. J. Chamberlain, who, after his visit to the famous institution at Washington, said: "I was quite satisfied with the results I saw, and, thinking it over since, I confess I cannot bring myself to believe that the oral system could possibly be satisfactory by itself. I am stronly in favor of the combined system." With reference to the intermarriage of the deaf, these gentlemen remark: "From our own life-long experience among the adult deaf and dumb, we find that the offspring of those who intermarry are *generally* hearing and speaking."

The report states "the sign and manual system trains the deaf to communicate and associate with their fellow-deaf." To this assertion Messrs. Owens and Slight demur, and think it misleading. The real object sought in sign and manual institutions is not to build up an elaborate and complex system of signs "intelligible only to the deaf and dumb themselves and their teachers," but to familiarize them with written language in its common colloquial forms, and thus to place them in possession of a ready means of communication with those among whom they may be placed in after life. It is unfair to attribute "deaf-mutisms" to the use of signs, as it is found that pupils taught on the pure oral method fall into similar inaccuracies.

The report is highly interesting throughout, and when the appendix, which has not yet appeared, and which contains all the testimony taken by the Commission, is printed, the whole will prove a valuable addition to the cause of deaf-mute education. The system recommended is so permeated with American ideas and practices as to practically exclude the pure oral method of instruction from the institutions and schools of Great Britain. There will be classes especially devoted to this method, but all the deaf children will not be required to submit to it. This is the beginning of a brighter day for the deaf of that country. In response to a letter received by the Secretary, I had the honor to forward a statement of the system and course of study pursued in this institution and it is very gratifying to note that the most practical members of the Commission, though in the minority, recommended the same course we have followed for the past nineteen years.

Industrial Training.

Industrial training in the common schools is one of the questions of the day for hearing children. For the deaf in Ontario it has been in operation since the establishment of this institution, and the good accomplished leads me to hope for its extension. We are a little behind some of the best United States institutions in this respect, but I hope we shall catch up to them in the near future. What to do with our boys after school hours is often a perplexing problem. Our shoe shop is doing a good work for thirty boys and the carpenter shop gives a few lads a chance to obtain a partial trade; there are others unemployed who would be glad to learn some handicraft if they had the chance. Broom making, brush making, tailoring and printing could be successfully taught if we only had the plant and instructors. Five or six thousand dollars for plant and from $1,500 to $2,000 a year for the instructors would be a good investment for the Province and be an inestimable boon to deaf boys. Our girls are carefully instructed in tailoring, dressmaking and plain sewing.

Order of Exercises.

The arrangements for the literary classes, services in chapel and industrial departments are :—

School Hours from 9 a. m. to 12 noon, and from 1.30 to 3 p. m.

Drawing Class from 3.20 to 5 p. m. on Tuesday and Thursday afternoons of each week.

Girls' Fancy Work Class on Monday and Wednesday afternoons of each week from 3.20 to 5.

Sign Class for Junior Teachers on the afternoons of Monday and Wednesday of each week from 3.10 to 4.

EVENING STUDY from 7 to 8.30 p. m. for senior pupils, and from 7 to 8 for junior pupils.

ARTICULATION CLASSES from 9 a. m. to 12 noon, and from 1.30 to 3 p. m.

SERVICES IN CHAPEL.—*Every Sunday.*—Primary pupils at 9 a. m., senior pupils at 11 a. m.; general lecture at 2.30 p. m., immediately after which the Bible class assemble. *Each school day* the pupils assemble in the chapel at 8.45 a. m. and the teacher-in-charge for the week opens by prayer and afterwards dismisses them so that they may reach their respective school rooms not later than 9 o'clock. In the afternoon at 3 o'clock the pupils again assemble and after prayer are dismissed in a quiet and orderly manner.

INDUSTRIAL DEPARTMENTS.—*Shoe and Carpenter Shops* from 7.20 to 8.30 a. m., and from 3.20 to 5.30 p. m. for pupils who attend school; for those who do not from 7.20 a. m., to 12 noon, and from 1.30 to 5.30 p. m. each working day except Saturday, when the shops are closed at noon. *The Sewing Class* hours are from 9 a. m. to 12 o'clock noon, and from 1.30 to 5 p. m. for those who do not attend school, and from 3.20 to 5 p. m. for those who do. No sewing on Saturday afternoons.

NEWSPAPERS RECEIVED.

Publishers of the newspapers hereunder named have very kindly sent their publications to the reading room of the institution free of charge, for which I, on their behalf, return thanks.

NAME.	Where Published.	NAME.	Where Published.
Evening Times	Hamilton.	The News	Berkeley, Cal., U. S.
Economist	Shelburne.	Northumberland Enterprise	Colborne.
Express	Colborne.	Norfolk Reformer	Simcoe.
Daily Advertiser	London.	Enterprise	Arthur.
Daily Free Press	Winnipeg.	Ensign	Brighton.
Daily News	Kingston.	Courier	Perth.
Free Press	Acton.	Advertiser	Petrolia.
Guardian	Uxbridge.	Chronicle	Beeton.
Mercury	Renfrew.	Sentinel-Review	Woodstock.
Western Despatch	Strathroy.	Courier	Embro.
Chronicle	Ingersoll.	Mutes' Journal	Omaha, Neb.
Monitor	Brockville.	Deaf-Mute Mirror	Flint, Mich.
Weekly Mercury	Guelph.	Goodson Gazette	Stanton, Va.
Examiner	Peterboro'.	Kentucky Deaf-Mute	Danville, Ky.
Gazette	Almonte.	Index	Colorado Springs, Cal
Observer	Pembroke.	Star	Olatha, Kan.
Post	Thorold.	Companion	Fairbault, Kan.
Spectator	Hamilton.	Deaf-Mute Advance	Jacksonville, Ill.
Niagara Review	Niagara.	Deaf-Mute Ranger	Austin, Texas.
Reporter	Kingsville.	Deaf-Mute Times	Delavan, Wis.
Banner	Dundas.	Vis a-Vis	Columbus, Ohio.
Enterprise	Collingwood.	Maryland Bulletin	Frederick City, Md.
Guide and News	Port Hope.	Tablet	Romney, West Va.
Independent Foresters	London.	Deaf-Mute Record	Fulton, Mo.
Dominion Churchman	Toronto.	Deaf-Mute Hawkeye	Council Bluffs, Ia.
Courier	Trenton.	Optic	Little Rock, Ark.
North Hastings Review	Madoc.	Daily Paper for Our Little People	Rochester, N. Y.
Trent Valley Advocate	Trenton.	Register	Rome, N. Y.
Rural Canadian	Toronto.	Journal	New York, N. Y.
Standard	Markdale.	Silent World	Philadelphia, Pa.
Tribune	Deseronto.	Voice	Jackson, Miss.
Telegraph	Palmerston.	The Sign	Salem, Oregon.
Herald	Carleton Place.	Silent Observer	Knoxville, Tenn.
Leader	Tara.	Weekly Sentinel	Port Arthur.
Echo	London.		

The Dominion Churchman, supplied by Rev. J. W. Burke.

MISCELLANEOUS.

The new refrigerator and the hot water system in the Superintendent's house supply long felt wants.

The school term is seven years. It ought to be increased to ten as has been done in the best institutions elsewhere.

The pupils came back promptly on the 11th of September and they were all classified and commenced their regular studies on the Tuesday following.

We received $125 for paying pupils last year and our expenditure was over $40,000. I would again urge that the institution be declared free in name as it really is in fact.

The pupils had a holiday in September to visit the Bay of Quinte show and enjoyed their outing very much. The directors kindly admitted them free.

The handsomely engraved diplomas and certificates, to be given to graduates and meritorious pupils on leaving, have incited our scholars to renewed efforts to be worthy of the distinction.

A new school building with large assembly room on the second flat is one of our necessities. This would give us plenty of dormitory room for our present and prospective population.

Twenty-six prizes were awarded to our gardener for flowers and vegetables at the Quinte Fair. This is creditable from the fact that his garden soil is little better than a brick clay bed and that he has no greenhouse.

The yield of the farm this year is hay and oats was good but the potato crop is short; instead of having 1,200 bushels we have less than 500. We have plenty of vegetables for table use from the garden.

The Grand Trunk, Canadian Pacific and Central Ontario Railways and their officials have placed us under renewed obligations by granting reduced fares to pupils and for their kindly attentions to them when *en route* to and from the institution on their lines.

Our pupils' examination papers were allowed to go through the mails to parents at reduced postal rates, through the courtesy of the Hon. Mr. Haggart, the Postmaster General. The matter was brought to his attention by the Hon. M. Bowell and to both gentlemen our thanks are due for their kindness and consideration.

We have been favored with appreciated visits from the following clerical gentlemen: Rev. Canon Burke, Rev. Dr. George, Rev. Mr. Learoyd, Rev. D. Mihell, Rev. Mr. Pope, Rev. Mr. Daw, Rev. Mr. Bogart, Right Rev. Monseignor Farrelley, Father Connelley and Rev. Mr. Browning.

Whatever success we have had in this institution during the year that is gone is due to the conscientious discharge of duty on the part of the teachers, officers and employees generally. They have worked harmoniously together, and by their united action my work has been lightened and made a pleasure

The health of the members of our large household was good during the year. We have had very little sickness of any kind and no serious cases whatever, which speaks well for the sanitary condition of the institution and its surroundings. There have been no deaths to report for two years.

The behaviour of the pupils has been so commendable as to deserve special mention. Last year, with 140 boys, there were no punishments for over three

months at one time, and for the nine months of the session only seven were deprived of privileges and mildly chastised. The girls, altogether, are models of good behaviour and lady-like deportment.

Three pupils entered in September who are over 21 years of age. Their parents did not like to be separated from them and kept them at home, although they were aware of the advantages offered here. Two or three children were offered, certified as being over seven years of age, who were not more than five. Our attendance is increasing, and the probabilities are that we shall not have enough beds for pupils and children for whom admission has been awarded. There are 237 now in residence, and 27 others have applied for admission; 10 of the latter are likely to come within a few days, the others I have advised to wait until next year. We have only 240 beds for pupils in all, and the dormitories have too many in them now to admit of others being put up. As we may look for an enlarged number within the next few years, additional accommodation will be needed.

An effort, which I hope will be successful, has been made to have the Manual alphabet, as used in institutions for the deaf, incorporated in the school books used by speaking children in our public schools. The great benefits to be derived from such a course cannot be overestimated, especially by the deaf. The alphabet has been printed on the backs of the general exercise books and rulers used in the common schools for several years past.

The retirement of Miss Robinson, matron, on account of ill-health, was regretted by her many friends. Her successor, Mrs. Craig, has performed her duties in an admirable manner, and given general satisfaction. An intimation that she is likely to be transferred to the Agricultural College makes us loth to part with her. Miss Walker, of Kingston, for a number of years assistant matron in Rockwood Asylum, who is to come in her place, is highly spoken of, and we hope will succeed in performing her new duties satisfactorily. Mrs. MacGillis resigned in September to take a position in a school for hearing children. The two graduates of the Institution, Miss N. L'Herault and J. Hadden, appointed monitor teachers at the opening of the session, give promise of future usefulness.

The usual statistical tables are annexed herewith.

I have the honor to be,
Sir,
Your obedient servant,

R. MATHISON,
Superintendent.

NATIONALITY OF PARENTS.

Name.	No.	Name.	No.
Canada	137	Germany	11
Ireland	33	Unknown	34
Scotland	27		
England	31	Total	274
Italy	1		

RELIGION OF PARENTS.

Name.	No.	Name.	No.
Presbyterians	66	Evangelical German	1
Methodists	72	Mennonites	3
Church of England	61	United Brethern	1
Roman Catholic	40	Church of Christ	2
Baptist	16	Congregational	1
Bible Christians	4	Unknown	4
Lutheran	3	Total	274

OCCUPATION OF PARENTS.

Occupation.	No.	Occupation.	No.
Agents	2	Boarding-house keeper	1
Axe makers	2	Barber	1
Baker	0	Carder	0
Blacksmith	8	Carpenters	12
Bookkeeper	2	Clerk	2
Brewer	1	Conductors	2
Butcher	1	Carters	2

OCCUPATION OF PARENTS.—*Continued.*

Occupation.	No.	Occupation.	No.
Cheesemaker	1	Merchants	4
Cooper	2	Moulder	1
Charwoman	0	Physician	1
Cattle dealer	1	Painter	1
Dressmaker	1	Plasterers	2
Druggist	1	Second-hand dealer	1
Engineer	4	Sailor	1
Expressman	2	Shoemakers	5
Drayman	1	Switchman	1
Farmers	104	Tailor	1
Grocers	4	Teachers	2
Harness makers	2	Watchmaker	1
Gardener	1	Waggonmaker	1
Hotel-keeper	2	Washerwoman	1
Lumbermen	2	Watchman	1
Laborers	56	Steamfitter	1
Livery proprietor	1	Unknown	11
Mechanic	1	Plate driller	1
Machinist	3		
Masons	2	Total	274

AGE OF PUPILS.

Age.	No.	Age.	No.	Age.	No.
7	17	14	21	21	8
8	14	15	19	22	4
9	20	16	30	23	3
10	21	17	23	25	2
11	19	18	20	26	1
12	20	19	7	27	1
13	20	20	4	Total	274

COUNTIES FROM WHICH PUPILS DURING THE YEAR CAME.

Counties.	No.	Counties.	No.
Algoma	2	Muskoka	4
Bothwell		Monck	1
Brant	4	Norfolk	9
Bruce	11	Northumberland	6
Cornwall	2	Ontario	9
Carleton	18	Oxford	10
Dufferin	1	Peel	2
Durham	4	Perth	6
Elgin	7	Peterborough	2
Essex	10	Prescott and Russell	5
Frontenac	5	Prince Edward	2
Grey	6	Renfrew	8
Haldimand	1	Simcoe	11
Halton	2	Stormont, Dundas and Glengarry	9
Hastings	14	Victoria	4
Huron	12	Waterloo	7
Kent	7	Welland	2
Lambton	10	Wellington	8
Lanark	4	Wentworth	10
Leeds and Grenville	9	York	19
Lennox and Addington	5		
Lincoln	1	Total	274
Middlesex	5		

TOTAL NUMBER OF PUPILS IN ATTENDANCE FOR THE SESSION 1888-89.

Males	153
Females	121
Total	274

COUNTIES FROM WHICH THE PUPILS IN RESIDENCE ON 30TH SEPTEMBER, 1889, WERE ORIGINALLY RECEIVED.

Counties.	Male.	Female.	Total.	Counties.	Male.	Female.	Total.
Brant	2	1	3	Ontario	4	3	7
Bruce	6	3	9	Oxford	6	2	8
Carleton	10	7	17	Peel	1	.....	1
Durham	1	2	3	Perth	2	2	4
Dufferin	1	.....	1	Peterborough	2	.....	2
Elgin	3	3	6	Prescott and Russell	4	1	5
Essex	5	5	10	Prince Edward	2	.....	2
Frontenac	2	1	3	Renfrew	3	4	7
Grey	2	3	5	Simcoe	3	8	11
Halton	1		2	Stormont, Dundas and			
Hastings	7	5	12	Glengarry	7	2	9
Huron	4	5	9	Victoria	1	3	4
Kent	4	3	7	Waterloo	1	4	5
Lambton	3	4	7	Welland	1	1	2
Lanark	2	1	3	Wellington	4	4	8
Leeds and Grenville	7	1	8	Wentworth	7	3	10
Lennox and Addington	1	4	5	York	9	6	15
Lincoln	.....	1	1	Muskoka District	2	3	5
Monck	.....	1	1	Nipissing District	1	.....	1
Middlesex	1	3	4	Algoma District	.....	1	1
Norfolk	8	1	9				
Northumberland	3	2	5	Total	132	105	237

NUMBER OF PUPILS IN ATTENDANCE EACH OFFICIAL YEAR SINCE THE OPENING OF THE INSTITUTION,

	Male.	Female.	Total.
From October 27th, 1870, to September 30th, 1871	64	36	100
" 1st, 1871, " 1872	97	52	149
" 1872, " 1873	130	63	193
" 1873, " 1874	145	76	221
" 1874, " 1875	155	83	238
" 1875, " 1876	160	96	256
" 1876, " 1877	167	104	271
" 1877, " 1878	166	111	277
" 1878, " 1879	164	105	269
" 1879, " 1880	162	119	281
" 1880, " 1881	164	132	296
" 1881, " 1882	165	138	303
" 1882, " 1883	158	135	293
" 1883, " 1884	156	130	286
" 1884, " 1885	168	116	284
" 1885, " 1886	191	112	273
" 1886, " 1887	151	113	264
" 1887, " 1888	156	109	265
" 1888, " 1889	153	121	274

COUNTIES FROM WHICH THE TOTAL NUMBER OF PUPILS WERE RECEIVED.

Counties.	Male.	Female.	Total.	Counties.	Male.	Female.	Total.
Algoma District	1	1	2	Frontenac	9	6	15
Bothwell	1		1	Grey	21	13	34
Brant	16	6	22	Haldimand	6	1	7
Bruce	16	10	26	Halton	3	5	8
Carleton	23	10	33	Hastings	21	16	37
Dufferin	2		2	Huron	26	23	49
Durham	12	7	19	Kent	14	9	23
Elgin	8	9	17	Lambton	15	6	21
Essex	6	12	18	Lanark	8	4	12

COUNTIES FROM WHICH THE TOTAL NUMBER OF PUPILS, ETC.—*Continued.*

COUNTIES.	Male.	Female.	Total.	COUNTIES.	Male.	Female.	Total.
Leeds	9	4	13	Renfrew	9	8	17
Grenville	5	1	6	Simcoe	16	15	31
Lennox	4	6	10	Stormont	8	4	12
Addington	1	1	2	Dundas	5	3	8
Lincoln	3	4	7	Glengarry	4	1	5
Middlesex	26	16	42	Victoria	3	5	8
Norfolk	13	7	20	Waterloo	10	13	23
Northumberland	8	11	19	Welland	5	4	9
Monck	1	.....	1	Wellington	16	14	30
Ontario	16	7	24	Wentworth	21	7	28
Oxford	12	9	21	York	27	26	53
Peel	5	3	8	Muskoka District	5	6	11
Perth	22	13	35	Nipissing District	1	.....	1
Peterborough	11	2	13	Parry Sound District	1	1	2
Prescott	5	1	6	New Brunswick	2	.....	2
Russell	5	4	9				
Prince Edward	4	1	5	Total	.....	.....	827

OCCUPATION OF PARENTS OF PUPILS ADMITTED SINCE THE OPENING OF THE INSTITUTION.

OCCUPATION.	No.	OCCUPATION.	No.
Accountant	1	Barber	1
Agent	4	Boiler-maker	1
Axe-maker	2	Book-keeper	4
Baggageman	1	Brakesman	1
Baker	3	Bricklayers	2
Barrister	1	Butchers	2
Blacksmith	19	Brickmakers	1
Boarding-house keeper	1	Brewers	

OCCUPATION OF PARENTS OF PUPILS ADMITTED, ETC.—*Continued*

Occupation.	No.	Occupation.	No.
Carters	2	Machinists	3
Cabdrivers	2	Lumbermen	5
Cabinet-makers	2	Malsters	1
Captain of schooner	1	Marble-cutters	2
Carder	1	Mason	4
Car Inspector	1	Manufacturer of agricultural implements	2
Carpenters	28	Mechanics	2
Carriage-makers	5	Merchants	15
Cheese-maker	1	Millers	3
Civil Service	1	Millwrights	2
Clerks	4	Miner	1
Conductors, Railway	2	Minister	1
Cigar-maker	1	Moulders	2
Coopers	4	Non-commissioned officer	1
Curriers	4	Nurseryman	1
Charwoman	1	Painters	9
Dealer in hides	1	Pedler	1
Drayman	4	Steamfitter	1
Dressmakers	3	Shoemaker	4
Doctors	1	Stage-driver	1
Engineers	3	Switchman	1
Engineers, Railway	3	Tailor	6
Farmers	366	Tavern-keepers	9
Fire Insurance Inspectors	1	Teachers	7
Fishermen	3	Teamsters	4
Grocer	2	Traders	2
Gaoler	1	Weavers	1
Gardener	1	Watchman	1
Gunsmith	1	Watchmakers	1
Harness-maker	2	Waggon-makers	2
Iron-maker	1	Washer-woman	1
Keeper of park	1	Unknown	81
Laborers	146		
Livery proprietors	3	Total	827

AGES OF PUPILS ADMITTED SINCE THE OPENING OF THE INSTITUTION.

Ages.	No.	Ages.	No.
4	1	19	23
.....	.....	20	13
6	24	21	9
7	105	22	10
8	95	23	6
9	93	24	5
10	55	25	6
11	64	26	5
12	56	27	3
13	48	30	1
14	39	36	1
15	52	Unknown	13
16	35		
17	34	Total	827
18	31		

CAUSES OF DEAFNESS.

Causes.	No.	Causes.	No.
Abscess	2	Falls	17
Accident	6	Fever, bilious	4
Affection of the ears	2	" brain	22
Bronchitis	1	" intermittent	2
Burn	1	" scarlet	61
Catarrh	2	" spinal	19
Canker	1	" malarial	1
Cerebro spinal meningitis	20	" typhus	5
Cholera	1	" typhoid	7
Cold	36	" undefined	19
Congenital	317	Fits	8
Congestion of the brain	7	Gathering of the ears	1
Diphtheria	3	" of the head	5
Dysentery	1	Inflammation of the brain	8

CAUSES OF DEAFNESS.—*Continued.*

Causes.	No.	Causes.	No.
Inflammation of the ears	3	Sickness undefined	25
" of the lungs	4	Spinal disease	42
" pulmonary organs	2	Swelling on the neck	1
" spinal marrow	1	Teething	10
Measles	21	Water on the brain	5
Mumps	5	Whooping cough	9
Paralytic stroke	1	Worms	4
Rickets	1	Causes unknown or undefined	102
Scabs	1	Sunstroke	1
Scald	1	Vaccination	1
Scald heads	3		
Shocks	5	Total	827

DATE OF DEAFNESS AFTER BIRTH.

	No.		No.
Under 1 year of age	71	Between 10 and 11 years	5
Between 1 and 2 years	93	" 11 " 12 "	2
" 2 " 3 "	86	" 12 " 13 "	2
" 3 " 4 "	52	" 13 " 14 "	4
" 4 " 5 "	33	" 14 " 15 "	2
" 5 " 6 "	23	Unknown at what age they lost their hearing, but not born deaf	106
" 6 " 7 "	11	Congenital mutes	317
" 7 " 8 "	9		
" 8 " 9 "	3	Total	827
" 9 " 10 "	8		

COUNTIES FROM WHICH THE PUPILS IN RESIDENCE DURING THE YEAR UP TO 30TH SEPTEMBER, 1889, WERE ORIGINALLY RECEIVED

Counties.	Males.	Females	Total.	Counties.	Males.	Females	Total.
Brant	3	1	4	Lincoln	.....	1	1
Bruce	8	3	11	Ontario	5	3	8
Carleton	11	7	18	Oxford	7	2	9
Durham	2	2	4	Peel	1	1	2
Dufferin	1	.....	1	Perth	2	3	5
Elgin	3	3	6	Peterborough	2	.....	2
Essex	5	6	11	Prescott and Russell	4	2	6
Frontenac	3	2	5	Prince Edward	2	.....	2
Grey	3	3	6	Renfrew	4	4	8
Haldimand	1	.....	1	Simcoe	3	8	11
Halton	1	1	2	Stormont, Dundas and Glengarry	9	2	11
Hastings	7	7	14	Victoria	1	3	4
Huron	5	8	13	Waterloo	1	6	7
Kent	4	4	8	Welland	1	1	2
Lambton	3	6	9	Wellington	4	5	9
Lanark	2	1	3	Wentworth	7	3	10
Leeds and Grenville	8	2	10	York	11	7	18
Lennox and Addington	1	4	5	Muskoka District	2	3	5
Monck	.....	1	1	Nipissing District	1	.....	1
Middlesex	4	1	5	Algoma District	.....	1	1
Norfolk	8	1	9				
Northumberland	3	3	6	Total	153	121	274

RELATIONSHIP OF PARENTS.

1st cousins	54
2nd "	15
3rd "	10
Distantly related	19
Not related	705
Unknown	24
Total	827

NUMBER OF DEAF-MUTE FAMILIES REPRESENTED.

1 family contained 5 mutes	5
3 families " 4 "	12
10 " " 3 "	30
55 " " 2 "	110
670 " " 1 "	670
Total	827

GOVERNMENT INSPECTOR:

R. CHRISTIE.

OFFICERS OF THE INSTITUTION:

R. MATHISON ..... *Superintendent.*
A. LIVINGSTONE ..... *Bursar.*
J. B. MURPHY, M.D. ..... *Physician.*
MRS. SARA CRAIG ..... *Matron.*

TEACHERS:

D. R. COLEMAN, M.A. ..... *Head Teacher.*

P. DENYS.
S. T. GREENE, B.A.
J. B. ASHLEY.
D. J. MCKILLOP.
D. M. BEATON.
JAMES HADDEN, *Monitor.*

MRS. J. G. TERRILL.
MISS S. TEMPLETON.
MISS H. M. OSTROM.
MISS MARY BULL.
MISS FLORENCE MAYBEE.
MISS NATHALIE L'HERAULT, *Monitor.*

MISS ANNIE MATHISON ..... *Teacher of Articulation.*

MISS MARY BULL ..... *Teacher of Fancy Work.*
JAMES HADDEN ..... *Teacher of Drawing.*

I. G. SMITH ..... *Clerk and Storekeeper.*
WM. DOUGLASS ..... *Supervisor of Boys.*
MISS A. GALLAGHER ..... *Instructress of Sewing.*
J. MIDDLEMAS ..... *Engineer.*
M. O'DONOGHUE ..... *Master Carpenter.*
WM. NURSE ..... *Master Shoemaker.*
MICHAEL O'MEARA ..... *Farmer.*
THOMAS WILLS ..... *Gardener.*

LIST OF PUPILS in the Ontario Institution for the Education of the Deaf and Dumb for the year ending, September 30th, 1889, with the Post Office address

COUNTIES.	P. O. ADDRESS.
Algoma District—	
Joice, Robt. J	Sault Ste. Marie.
Ward, Annie	Rat Portage.
Brant—	
McKenzie, R. M	New Durham.
Pollard, B. M	Burford.
Simmons, M	New Durham.
Smith, A. V	Brantford.
Bruce—	
Burr, Annetta	Parkhead.
Barclay, C. M	Allensford.
Channon, A. E	Dyer's Bay.
Channon, Jos. M	do
Gregg, Wm. J. S	Port Elgin.
Luddy, David S	Walkerton.
Morgan, Jos. E	Kincardine.
McRitchie, Prudence	Maple Hill.
Pickard, Ed	Paisley.
Speer, Ed	Tara.
Smith, Louisa	Park Head.
Yack, Gustave	Cargil.
Cornwall—	
McDonald, Hugh	Harrison's Corners
McDonald, Ronald	do
Carleton—	
Armstrong, Levi	South March.
Baizana, Jean	Ottawa.
Hunter, W	do
Henault, Chas H	do
Hodgins, M. L	Diamond.
Montgomery, H	Richmond.
O'Brien, Rich	Lime Bank.
Lamothe, Clara	Ottawa.
Skeffington, Margt	Rochesterville.
McGillivray, A. A	Fitzroy Harbor.
Harold, Wm	Panmuir.
Lett, Thos. B. A	Carp.
Lett, Stephen	do
Jamieson, Eva	Ottawa.
Lamadeleine, Jose	do
Tanner, R. H	do
Delaney, Jas	do
Borthwick, Margt	do

Counties.	P. O. Address.
Dufferin—	
Brown, Wilson	Reading.
Durham—	
Ballagh, Winnie	Starkville.
Brown, J. W.	Hampton.
Justus, M. A.	Bethany.
McCulloch, Jno. A.	Enfield.
Elgin—	
Blue, Duncan	Dutton.
Dewar, Aggie	St. Thomas.
Eames, Ina Fay	do
Henderson, Jno.	Talbotville.
Hesner, Jacob	Rodney.
McMillan, Flora	Dutton.
Phillimore, M.	Aylmer.
Essex—	
Ball, Ernest	Windsor.
Ball, Mabel	do
Bain, Wm.	do
Campbell, Susan	do
Jodoin, Noah	do
Kinsman, D.	Comber.
Lafferty, Matilda	Windsor.
L'Herault, N.	do
Robson, Jos.	Leamington.
Sepner, A. E.	Windsor.
Frontenac—	
Clench, Wm. H.	Wolfe Island.
Crozier, Fred. H.	Fermoy.
Miller, Mary J.	McLaren's Mills.
Roushorn, Geo. H.	Perth Road.
Spooner, A. E.	Glenburnie.
Grey—	
Andrews, Maud	Owen Sound.
Calvert, Francis	Horning Mills.
Carson, Hugh	Meaford.
Coulls, Margt.	Dundalk.
Middleton, Thos.	Horning Mills.
Moote, A. E.	Owen Sound.
Haldimand—	
Bradshaw, Thos.	Jarvis.
Armstrong, J. E.	do

Counties.	P. O. Address.
Halton—	
Gillam, Chris	Bronte.
Gilleland, Annie	Oakville.
Hastings—	
Butler, Annie	Sine.
Blackburn, A. M	Coehill Mines.
Beatty, Donella	Melrose.
Donal, Martha	St. Ola.
Holton, Chas. McK	Belleville.
Irvine, Eva G	do
Irvine, Ethel	do
King, John	New Carlow.
King, Robert	do
Kavanagh, M	Bancroft.
Keiser, B. A	Belleville.
Robinson, M	do
Swanson, Alex	do
Wiley, E. A	Marmora.
Young, Jno. C	Madoc.
Huron—	
Agnew, Ellen	Blake.
Burtch, Francis	Gorrie.
Black, Newton	Dungannon.
Cumming, Lilly	Melburn.
Hayward, Mary	Clinton.
Hoggard, Hep	Londesborough.
Leigh, Martha	Port Albert.
McCulloch, M. E	Brussels.
Pellypiece, Lovilla	Wingham.
Sparling, W. H	Kirkton.
Smalldon, Jno.	Cranbrook.
Thompson, M. W	Dungannon.
Wood, Nelson	Exeter.
Kent—	
Bloom, Duncan	Thamesville.
Campbell, Marion	Chatham.
Crosby, Eliza A	Eberts.
Fisher, Jno. F	Chatham.
Henry, Geo.	do
Henry, Lotta	do
Lynch, Martha	do
Thompson, William	Thamesville.
Lincoln—	
Major, E. E.	Grimsby.

Counties.	P. O. Address.
Lambton—	
Glass, Tot	Petrolia.
Hadden, Jas	Moore.
Lucas, Henrietta	Mandamin.
Mitchell, May B.	Sarnia.
McFarland, Aggie	Forest.
Steele, Edith	Point Edward.
Steele, Mabel	do
Summers, Thos. W.	Sarnia.
Turrill, David.	Florence.
Wark, W. A	Sarnia.
Lanark—	
Culligan, Maud	Appleton.
Gardner, A.	Watson's Corners.
Lockhart, A.	Almonte.
Thackaberry, Wm	Carleton Place.
Sicard, Moses	The Brook.
Leeds and Grenville—	
Beane, Ernest.	Prescott.
Crawder, Vascoe	do
Hunt, Francis.	Rockport.
Murchand, Ed.	Cardinal.
Murray, Matthew	North Augusta.
Newton, James	Portland.
Newton, Agnes	do
Rape, Cecelia	Lansdowne.
Todd, Rich	Smith's Falls.
Lennox and Addington—	
Bradshaw, A.	Harlan.
Grooms, H. M.	Napanee.
Hill, Florence	do
Sayer, M. M.	do
Sayer, P. A	do
Monck—	
Swayze, Ethel.	Franconia.
Middlesex—	
Corran, H. A.	London.
Gouly, W. H	do
Lenthorn, R.	do
McIntyre, Eliza	do
Scott, Lizzie.	Norway.

Counties.	P. O. Address.
Muskoka District—	
Dickson, Geo	Pembroke.
Hunter, Geo.	Burke's Falls.
Hares, Emily	Allansville.
Morrison, Dolly	Reay.
Norfolk—	
Bowlby, Culver	Simcoe.
Harris, Frank E	do
Hodgson, M. C.	do
Chambers, Jas.	Silver Hill.
Kelly, Geo	Glen Meyer.
Lewis, Levi	Vannessa.
McIsaac, Jno	Delhi.
Woodward, Ed	St. Williams.
Northumberland—	
Cullen, A. E.	Cobourg.
Whi e, Julia.	Bewdley.
Wright, Thos	Newcomb's Mills.
Youngs, M.	Colborne.
Warner, H. A	Castleton.
Leyon, Arthur	Campbellford.
Ontario—	
Espin, E. E	Shirley.
Gilbert, Marg't.	Germania.
James, Eliza.	Oshawa.
Kirby, A. J	do
Munro, Jessie M	Ashburn.
McRae, Murdoch	Beaverton.
Ross, Jas	Bracebridge.
Oxford—	
Chantler, James	Woodstock.
Chantler, Jno	do
Chantler, Thos.	do
Chantler, Fanny	do
Chute, Edwin	do
McKay, Wm	do
Perry, A. E.	Innerkip.
Skilling, E.	Kintore.
Wheally, Henry	Woodstock.
Yack, Lena	Tavistock.
Peel—	
Beattie, Sam	Norval.
Knight, Naoma	Caledon.

Counties.	P. O. Address.
Perth—	
Fuller, Marg't	Mitchell.
Kennedy, Marg't	do
Leeslie, E. A.	Listowel.
Moore, Claudia	Sebringville.
McLaren, Thos	St. Marys
Peterborough—	
Isbister, Jno. A	Lakefield.
Craugh, Jno. E	Ennismore.
Prescott and Russell—	
Herrington, I	Russell.
Herrington, R.	do
Labelle, Noah.	do
Charbonneau, L	Lefaivre.
McEwen, Jas. S	Billing's Bridge.
Prince Edward—	
Davis, Chas	Picton.
Minaker, W. I.	do
Renfrew—	
Brazier, E. A.	Combermere.
Fraser, A. E.	Pembroke.
Lewis, Caroline	do
McPhee, Gertie	Palmer's Rapids.
Mulentz, Chas.	Pembroke.
Mick, Jessie	Micksburg.
Moore, Wm. H.	Deux Riviere.
McBride, Hamilton	Westmeath.
Simcoe—	
Armstrong, M. E	Collingwood.
Bassett, Sarah	Tioga.
Avarell, Sarah.	Newton Robinson.
Corbiere, Eli	Barrie.
Crosbie, Agnes M.	Lisle.
Johnston, Jos. S.	Barrie.
Lougheed, W. J. S.	Orillia.
Lennox, David	Phelpston.
Morrison, Mary	Collingwood.
Munro, Mary	Midhurst.
O'Neil Mary	Collingwood.

Counties.	P. O. Address.
Stormont, Dundas and Glengarry—	
Benoit, Rosa	Crysler.
Baker, Laura	Woodlands.
Faubert, Francis	St. Isidore de Prescott.
Gagne, Elzear	Cornwall.
Hanson, Robt	Morrisburg.
Hence, Henry A	Summerstown.
McDonald, Flora	St. Raphael.
Rivier, D. J	Cornwall.
Victoria—	
McPherson, C. A	Glenarm.
Reeve, Geo	Lindsay.
Robinson, Lueffa	Bobcaygeon.
Garden, Elsie	do
Waterloo—	
Gardiner, Florence	Berlin.
Kahler, Louis	Wellesley.
Nahrgang, Louida	New Hamburg.
Nahrgang, Mary	do
Lake, Jennie	Glen Morris.
Schwartzentruber, C.	Petersburg.
Thompson, A. E.	Galt.
Welland—	
Lentz, Henry	Snyder.
Lentz, Catharine	do
Wellington—	
Bridgeford, Geo	Harriston.
Brown, Jessie Mc	Mount Forest.
Farrell, Marg't	Salem.
Mallett, Jose	Teviotdale.
Munro, A. G	Palmerston.
Wolfe, Barbara	do
Watt, Marg't	Guelph.
Watt, Wm. R	do
Wentworth—	
Braithwaite, Jno. A	Carluke.
Bryce, Wm.	Hamilton.
Clark, R. W	do
Goodbrand, Jas	Ancaster.
Hackbusch, Ernest	Hamilton.
Nolan, Eliz.	do
McPhail, Annie L	do
Pettit, Syrian	Stoney Creek.
Stenebaugh, Wm	Weir.
Warwick, Emily	Hamilton.

Counties.	P. O. Address.
York—	
Burk, Jennie	Toronto.
Carr, Alex	Parkdale.
Clark, A. E.	Aurora.
Grey, Wm. E.	Toronto.
Grey, Wm	do
Gates, Jonathan	do
Hill, Thomas	do
Hunt, Sarah	do
Hutchinson	do
Muckle, Grace	do
Muckle, Lizzie	do
McGregor, Flora	do
McGillivray, Neil	Purpleville.
McGilivray, Mary	do
O'Rourke, Wm	Parkdale.
Riddle, Fred	Box Grove.
Shepherd, Anival	Toronto.
White, Henry	do

REPORT OF THE PHYSICIAN OF THE INSTITUTION.

Belleville, October 10th, 1889

R. Christie, Esq.,
Inspector of Public Charities.

Sir,—During the term just closed there was a continuance of the remarkably good health which characterized the year preceding. Very few serious cases of illness occurred and none terminated fatally—indeed it is gratifying to report that no deaths have taken place for the past two years amongst either pupils, employees or their families, aggregating about three hundred and fifty. We naturally expect each session to cope with numerous disorders peculiar to children, but with the excellent care and vigilance exercised by those in charge, the physical almost invariably keeps pace with the mental improvement. Several of the recruits this year are of a very tender age, but bright and intelligent.

I have no reason to complain of the sanitary arrangements in connection with the Institution, but may say I am pleased to notice that the Government contemplate introducing a new system of disposing of the sewage, for although the mouth of the sewer lies at a considerable distance from the water pipes, there is danger in a comparatively still body of water that the supply would become contaminated through the agency of winds, etc. The step will be gratifying also to the residents of the city who are apprehensive of danger to their supply which is obtained from the same source.

During vacation the interior of the building underwent the usual cleaning process, and the main hall and several rooms were papered, nothing being left undone to render the surroundings pleasant, a fact which alone will partly explain the good health prevailing, as health in a great measure depends on pleasant and cheerful surroundings.

Strict attention is as usual paid to the quality of the food ordered, and the preparation is carefully looked after as well.

I have the honor to be, Sir,
Your obedient servant,

J. B. MURPHY, M.D.,
Physician.

EIGHTEENTH ANNUAL REPORT

OF THE

INSPECTOR OF PRISONS AND PUBLIC CHARITIES

UPON THE

ONTARIO INSTITUTION

OF THE

EDUCATION AND INSTRUCTION OF THE BLIND,

BRANTFORD.

BEING FOR THE YEAR ENDING 30TH SEPTEMBER, 1889.

PRINTED BY ORDER OF THE LEGISLATIVE ASSEMBLY.

TORONTO:
PRINTED BY WARWICK & SONS, 68 AND 70 FRONT STREET WEST.
1890.

Office of the
Inspector of Prisons and Public Charities, Ontario,
Parliament Buildings, Toronto, November, 1889.

Sir,—I have the honour to transmit herewith, to be presented to His Honour the Lieutenant-Governor, the Eighteenth Annual Report upon the Institution for the Education and Instruction of the Blind, Brantford, being for the year ending 30th September, 1889.

I have the honour to be, Sir,

Your most obedient servant,

R. CHRISTIE,

Inspector.

The Honourable J. M. Gibson, M.P.P.,
Secretary for the Province of Ontario.

CONTENTS.

	Page.
Introduction	9
Minutes of Inspection :	
17th July	9-10
22nd October	10
Principal's Report	11-18
Examiners :	
Report on Literary Classes	19-22
Report on Musical Department	22
Maintenance Expenditure	23
Statistics	25-28
Physician's Report	24

INSTITUTION FOR THE EDUCATION OF THE BLIND.

EIGHTEENTH

ANNUAL REPORT

OF THE

INSPECTOR OF PRISONS AND PUBLIC CHARITIES

FOR THE

PROVINCE OF ONTARIO.

PARLIAMENT BUILDINGS,
Toronto, November, 1889.

To the Honourable SIR ALEXANDER CAMPBELL, K.C.M.G., *Lieutenant-Governor of the Province of Ontario*

MAY IT PLEASE YOUR HONOUR :—

I beg to submit herewith the Eighteenth Annual Report upon the Ontario Institution for the Education and Instruction of the Blind, Brantford, being for the official year ending 30th September, 1889.

I have the honour to be,
Your Honour's most obedient servant,

R. CHRISTIE,
Inspector.

ONTARIO INSTITUTION

FOR THE

EDUCATION AND INSTRUCTION OF THE BLIND.

In submitting the annual report upon the work of this Institution it is unnecessary to make a lengthened statement in regard to its operations during the past year.

In the reports of the Principal and Examiners which follow will be found detailed statements of the work accomplished, and from its past history as an educational institution, together with its present organization and good prospects for carrying out the purpose of its establishment, the hope may well be entertained that the no small measure of success which has been reached will in time to come be exceeded and that good results will continue to show themselves in the work of the institution.

Inspections.

Copies of the minutes made by me after my various inspections are appended :—

I made an inspection of the Institution for the Blind on the 17th July, 1889, principally with the view of determining in regard to some improvements provided for under Capital Appropriation, and requiring to be completed, so that the coming session of the institution might not be interfered with by having the premises in an untidy condition at the time of the reassembling of the pupils.

The principal work to be done is the laying of the hardwood floor in the corridor, at the estimated cost of $40.00; an expenditure in the bursar's office, for renovating it, not to exceed $50.00 ; also kalsomining the corridor connecting the kitchen with the main building; the painting and pointing of the Principal's house, not to exceed the sum of $100.00; instructions were given to have these matters completed within the prescribed time, and not to exceed the estimated cost as above.

In view of the extended and increased waterworks system now being constructed for the purpose of securing an ample supply for the city, some correspondence has taken place with the authorities for the purpose of estimating the cost for a supply from this source for the better protection of the institution buildings, in the event of a fire. Somewhat different plans may be adopted for the accomplishment of the purpose, and the superintendent was requested to make more definite enquiry in regard to cost of the works that would be required, in event of the supply being furnished by the city for fire purposes.

An appropriation was also made during the last session of the legislature, for the better disposal of sewage. The most favorable time for the construction of such works would be during the vacation term. In view of the very probable success of the new system by the use of the porous carbon, now being tested in several localities, it is deemed better to delay operations until the tests would prove the desirability of its adoption at the institution.

In company with the Honourable the Treasurer, I again visited the Institution for the Blind, Brantford, on the 22nd October, and saw the several classes engaged in literary work, and also the pupils employed in the industrial branches.

The classification and distribution appeared to be made with due care and judgment, with the object of affording the pupils the best opportunity for acquiring knowledge according to their individual aptitude and ability.

The important question of the best methods of imparting instruction to the blind continues to receive careful consideration, and, from time to time, improvements are being introduced which will no doubt result in adding interest to the work of the class-room, and in many ways tend to the advancement of the pupils under instruction.

In this regard the recent adoption of the "Kindergarten" system in teaching the junior classes appears to be attended with good results in developing the mind, and enabling the sightless pupil to apprehend more fully and rapidly the lesson taught.

The number of pupils now on the roll, in residence, is 138, 79 males and 59 females, or a total of 138, all of whom, with one exception, were in good health, and reported to be zealously and actively engaged in the work of the session.

During the recess the institution buildings have all been thoroughly gone over, and any necessary repairs have been made, and the apartments throughout are found to be comfortable and neatly kept. All the available space, however, is now occupied, and in event of the admission of a larger number the question of increased accommodation, on the female side especially, will have to be considered.

The necessity for a large number of separate apartments for music practice is obvious, when at least a good degree of proficiency is to be looked for. And although no space in the building has been taken up for this purpose which could be done without, yet the necessities in this regard have from time to time made some encroachment which, together with the actual class-room accommodation required, has left no separate apartment which can properly be used as a sitting or recreation room for the female pupils, and such additional room for their use in stormy or severe weather is indispensable.

In consequence of the light rain-fall for many months past the probable insufficiency or failure of the water supply from the present source is causing some anxiety. The spring from which it is got for culinary and domestic use has largely diminished from its ordinary flow, and the rain water-tanks which have been relied upon for a supply for laundry purposes, have also been empty or nearly so for a long time past. In view of the permanent system for supplying the city being now in operation, enquiry will be made as to the terms upon which water can be obtained for the institution from that source, at least to the extent of making good the quantity which is lacking, to make it ample, both for domestic use, and for service for fire purposes.

The grounds were in good order but the crops, owing to drouth during the past season, have in most cases been inferior.

PRINCIPAL'S REPORT.

To Robert Christie, Esq.,
Inspector of Public Institutions, etc.

Sir,—I have the honor to present the report of the Ontario Institution for the Blind for the year ending September 30th, 1889, and shall, in the first place as in former years, deal with the

Statistics of Attendance.

The enrolment of pupils during the session under review numbered 148, or twelve more than in the previous session. Of the 148 pupils eighty-six were males and sixty-two females. One youth, immediately after the vacation of 1888, having evinced a determination to violate the rules and encourage others in their violation, was promptly returned to his friends for the remainder of the session. At the close of the session the register showed a pupil population of 147, of whom eighty-five were males and sixty-two females, and of these 116 had re-entered on the 30th September, 1889. This leaves thirty-one to be accounted for as follows :—

	Males.	Females.	Total.
Graduates :			
Willow workers	3	0	3
Piano tuners	2	0	2
From literary classes	1	1	2
From work-room, knitting and fancy work classes	0	1	1
Fairly proficient in literary and other branches	1	2	3
Obtained employment	2	0	2
Left Canada	1	0	1
Excluded, owing to mental incapacity	0	3	3
Excluded, owing to improved sight	1	0	1
Detained at home for explained cause	0	1	1
Detained at home for causes at present unknown	4	0	4
Detained at home temporarily	5	1	6
Removed owing to ill health	1	1	2
	21	10	31

The attendance on the 30th September, 1889, was 135, eleven more than were present at the corresponding date last year, and included the following :—

	Males.	Females.	Total.
Pupils of preceding session	65	51	116
" former sessions re-admitted	4	1	5
New pupils	8	6	14
	77	58	135

It will be observed that in the first table above given six pupils are described as "Detained at home temporarily." Their return will bring up the total pupil population of this session to 141, eighty-two males and fifty-nine females. But to these will shortly be added the youth excluded a year ago now re-admitted on probation, and one new male applicant. There are three or four others on the list for admission, one or more of whom may possibly enter before long. According to present appearances we shall, before Christmas, have to provide accommodation for not less than 143 pupils, or three in excess of what we regard as our full number, and ten more than were in attendance on the 31st

December, 1888. My last year's estimate of the probable maximum enrolment was exceeded by eight, and I shall be safe in predicting that, before the vacation of 1889, we shall have registered for the current session close upon 150 pupils. No special efforts have been put forth during the past year in the way of canvassing for new pupils, although during the holidays calls were made by officers at my request in several instances where a personal interview seemed to be desirable.

I drew attention in my last report very pointedly to the lamentable evidence too frequently afforded of parental ignorance, or indifference, or mistaken affection as preventing the attendance and education of blind young persons, whose lives are simply wrecked by the refusal to place them in the institution. I do not propose to say more on the subject of compulsory education at this time, except to remark that it might possibly be applied tentatively to the cases of those youths who are in any respect dependent, or likely to become dependent, on municipal support. Such cases do exist within my personal knowledge.

The ages of the new pupils are as follows:—

Years.	Males.	Females.	Total.
7	0	1	1
10	1	0	1
13	1	3	4
14	1	1	2
15	1	0	1
16	0	1	1
19	1	0	1
22	1	0	1
28	1	0	1
35	1	0	1
	8	6	14

Graduates of 1889.

Some reference to the attainments and prospects of the pupils who have recently graduated in various branches of learning and instruction may be interesting, as showing very forcibly the benefits conferred by the institution on those who avail of its advantages. Of the willow shop graduates the senior is a young man twenty-six years of age. He lost his sight by an accident when he had just arrived at manhood. His employment, previous to his entering the institution, had been exclusively agricultural, but to a well developed mechanical faculty he added a most conscientious attention to instruction, and close application to his business. He has graduated at the end of four brief sessions with a full outfit of tools, models and material, and qualified to hold his own in the production of any article in his line, from the rough bushel-basket to the handsome rattan rocking-chair, with any seeing workman in the province. Both the other willow shop graduates entered while children and took the usual course of literary studies. Their introduction to the willow shop was, as is usual in such cases, gradual, but both made excellent progress, and have graduated before attaining the age of twenty-one years. They have now started in life with good prospects of success. One of them is a member of a family of twelve children of whom six are eligible for admission to this institution, and have availed of the privilege. Four, all very intelligent pupils, are still here. The third willow shop graduate is one of a family of five, all eligible for admission. Two elder brothers have already passed through the institution, and a younger sister has just entered.

Two young men have, it will be noticed, graduated from the piano-forte tuning class. One of them came to us after having failed, from defective vision, to succeed in another vocation. He is now engaged by a local firm as their tuner. His graduating companion proved to be the possessor of very superior musical talents which have had here full opportunity for development. Under Professor Baker's able instruction he has attained to great proficiency on the violin, his favorite instrument; he has also taken a full course

in harmony, is an excellent pianist, and is quite competent to fill the position of a church organist. He is now engaged by Messrs. Mason & Risch, of Toronto, in whose factory several of our pupils have found employment, When I add that this young man is the son of an ex-settler on a free grant lot in Muskoka, and has been for some years practically parentless, his indebtedness to this institution will need no further illustration.

The male graduate from the literary classes had made good progress with his studies at a public school when circumstances made application for his admission to this institution necessary. He had ample opportunity and ability to succeed well as a piano tuner and musician, but high if somewhat vague aspirations in other directions, led to his—in my opinion—too early retirement. The female literary graduate had been with us from a very early age. She had not only reached the head of her literary classes, but had found time to become thoroughly proficient in the use of the sewing machine with all its attachments, as well as in every description of knitting and crochet work. Her musical attainments were considerable, and quite sufficient to enable her to be the teacher of others. The pupil referred to as graduating from the work room and knitting classes has also made a most creditable use of the opportunities afforded her.

The Mentally Incapable.

The work of this institution, although mainly directed to training blind young persons to maintain themselves in case of need wholly or in part by their own efforts, cannot be limited to this object. A large class will always remain who, while their own lives are made happier and the burden of their support is to some extent lightened by the education and instruction they receive here, are still quite unequal to independent exertions; and there are those, too, who, while capable of learning up to a certain point, can never acquire enough knowledge to be practically useful. But the degree of their mental incapacity is not always ascertained in the first instance. How much is due to neglected education and how much to actual intellectual deficiency can only, in many cases, be decided by trial and observation. Unless the question of incapacity is beyond reasonable doubt, I feel it to be my duty to grant the application for admission and to give the pupil the opportunity of showing, under judicious treatment, whether his continuance in the institution is likely to be of any real value or not. Two of the three recently excluded were allowed to remain for several sessions, and withdrawn at last only when further progress appeared unattainable. The other child was but a few weeks in the institution. She was found to be too defective to warrant her retention.

The Staff.

The staff of teachers and instructors has undergone no changes, I am glad to say, since the last report was issued. I can but repeat my acknowledgments of past years to those to whose devotion to duty and kindly concurrence in every plan or arrangement calculated to further our work must be ascribed in a large measure the satisfactory results attained.

The Literary Classes.

It must be obvious that, to a large proportion of our pupils, what is usually known as high literary culture is unattainable. Their circumstances in life, as a rule, limit their opportunities to a curriculum about equal to that of a well-conducted public school or at most of the junior classes of a High School. And I think our examiners will bear me out in stating that, for thoroughness of teaching, we may fairly claim at least equality with the institutions just mentioned. But when, or even before, this standard is reached a natural and commendable desire usually shows itself to be doing something having a more direct bearing on future means of livelihood. On the other hand, as suggested in my last report, it is only right to give to those whose personal surroundings and intellectual faculties and tastes call for it such superior advantages as may be reasonably afforded. Last session we accordingly took up in our senior classes the study of Eth-

nology in connection with Geography, and Philology in connection with Grammar. An elocution class was also formed and did good work. In English Literature our pupils have always done well, but last year the scope of their studies was broadened by the introduction in an elementary form of the history and character of French, Spanish and Italian literature. This session we have gone a step further and, in addition to the foregoing, have formed a select class of five pupils who are taking up the University Matriculation course with the prospect that, here and there, one may enter upon a career for which such preparation is essential. I must at the same time caution parents and others interested against allowing young persons, altogether inexperienced in the difficulties which inevitably lie in the path of their ambition, to throw up practical, and, as experience has demonstrated practicable pursuits for visionary ideas of intellectual achievements and fame. That, so far as passing an examination is concerned, the way may be smoothed and that, with a certain outlay of money on private tuition, a blind person may secure his degree need not be questioned. But all are not equal to the close and laborious application necessary to the attainment of that end, many cannot command the necessary funds, and then the question arises what will the blind B. A. do for himself when he has secured that coveted distinction. He may achieve honor, professional or political fame, nothing, I grant, is impossible to energy and genius, but he may turn out after all nothing but a book peddlar, the least desirable of decent occupations to which a blind man can resort and envy his precarious lot the blind organist, pianist, music teacher, piano tuner or willow worker. It may, it is true, be laid down as an axiom that no blind man knows, nor do his friends know, what he can do with proper instruction and appliances; but equally true is it, that he never realizes the difficulty of doing what he has to do until he has to face the doing of it. For a detailed account of the work done by the Literary Classes the reader is referred to the Examiners' report appended.

The Music Classes.

The studies of the Music Classes proceeded with unbroken regularity during the last session and have been renewed with much spirit since the pupils re-assembled. A pleasant event, and one in which the institution may feel itself honored, was the winning by Miss M. A. Callaghan, one of our music teachers, of the gold medal at the second year examination for the degree of Bachelor of Music at Trinity College. This fact, among others, indicates the high class of instruction received by our pupils. One of the latter is now taking a course of musical study in the hope in due time of following in the steps of his accomplished teacher. Three of our female pupils have returned and one is yet expected to rejoin us, principally with the object of gaining further training and practice as music teachers. One of them also instructs a junior class in Theory. Another of these young persons is also under Mr. Williams attaining a high degree of proficiency as a church organist. Our organ, piano and violin classes are all in a very encouraging state and quite full. The whole of the pianos were carefully examined at the end of the late session and those needing it were thoroughly repaired. One or two, however, have, I fear, little chance of being useful for more than the present session. One new instrument will be required, and I trust the recommendation of Professor Aldous in favor of supplying the clarionet stop to the pipe organ will be favorably regarded.

The Tuning Class.

This class contains the same number of pupils as did the class of last session. I have already noticed the favorable auspices under which two of the piano tuners recently graduated. The reports we hear of our ex-pupils of the tuning class are almost uniformly encouraging.

The Willow Shop.

Mention has been made of the three pupils who have graduated since my last report from this department. There are at present thirty pupils, some five or six in excess of the

usual number, under Mr. Truss's instruction. Of these, twenty-one are exclusively willow workers—the others still combine with industrial work a certain amount of literary class study. I append the Trade Instructor's report :—

TRADE INSTRUCTOR'S REPORT.

MR. A. H. DYMOND,
Principal.

SIR,—I have the honor to submit my report upon the operations of the workshop during the year ending September 30th, 1889.

It is no very easy task to point out anything new in a work which has been the subject of so many yearly reports. The common-place matters connected with industrial employment and the teaching of twenty-five or thirty blind boys to earn their daily bread require, to make them interesting, the ability of one who can magnify little things into importance. I have no such talent and must content myself with reporting, to a great extent, the experience and detail of many former sessions.

The work of the session, as usual, has been marked by industry on the part of most of the pupils, although, as may be expected, there are a few exceptions to this record. Those pupils who have not distinguished themselves by industry have, however, received special attention and have been made to understand that of all contemptible things nothing is so contemptible as laziness. They have been reminded that "Satan finds some mischief still for idle hands to do," and that Satan tempts everybody, but that a lazy person tempts the devil. Not one lazy pupil during the entire session has been allowed to spend one day in a state of unrebuked and unruffled laziness. We have had a fair degree of good temper and cheerfulness, the result has been excellent progress.

In addition to the stimulation afforded as indicated, generous encouragement and rewards have been given to the industrious. At the close of the session three full outfits were presented to as many graduates—the three outfits costing about $250. This was provided from the proceeds of the sales of the pupils' work. The graduates are competent to make by their own efforts a great variety of baskets, rattan chairs, etc., etc., and should, by their labors, be able to support themselves. I have every reason to believe they will do so. A liberal supply of willow and rattan was given to ten pupils for their use during vacation. The following statement will show the result :

D. M. earned	$39 00
A. C. "	35 00
J. W. "	44 00
C. B. "	30 00
R. H	no report.
G. M. earned	$30 00
J. W. "	20 00
T. N	no report.
E. S	no report.
W. L. earned	$38 50
	$236 50

I. P., a pupil who spent the session at home, turned out one hundred dollars worth of work.

I would draw particular attention to one pupil, a French Canadian, who, during the vacation exhibited remarkable perseverance and industry : in addition to earning $39 at willow work he cut fifty cords of wood, for which he was paid $25. He has returned this session hearty and with the smile upon his face which comes to the youth who believes that fortune smiles upon those who roll up their sleeves and put their shoulder to the wheel, and that good luck comes from a hard day's toil. He evidently believes in the dignity as well as utility of labor.

The following statement shows the amount realized from sales during the session and work still on hand:

Sales	$628 93
Value of work on hand	200 00

The present session has commenced with all the pupils in good spirits, which gives promise of a very successful term.

I have the honor to be, sir,
Your obedient servant,

THOS. TRUSS,
Trade Instructor.

THE LIBRARY.

Among the new issues from the American printing houses of which we have availed ourselves have been, "Selections from Character," (Smiles): "Land of the Pyramids," "All the Russias;" Cæsar's "Commentaries;" Life of Sir Walter Scott, etc., etc. Our stock of specimens for object teaching will bear some additions, and the library will be further strengthened if means are afforded us, as they doubtless will be to procure several new works in line type or point print now in the press. The increased supply of books printed in point is highly advantageous to all whose sensitiveness of touch has diminished with age or owing to the use of the hands in industrial vocations. To such the line embossed type is of little value.

THE SUNDAY SCHOOL.

The instruction of the pupils in Biblical knowledge has never been lost sight of in connection with this institution. On Sunday morning, immediately after roll call and the usual devotional exercises, the Protestant pupils, in seven classes under as many teachers, and formed on strictly undenominational principles, study the International Lessons. The Roman Catholics assemble at the same time under the charge of an officer of their own communion. To assist our young folks to obtain a better knowledge of Biblical geography and the places and regions alluded to in the Scriptures we have constructed in duplicate raised maps of the Holy Land and of all the region connected with the sacred narrative, from Rome the most easterly point reached by St. Paul in his recorded travels to the mouths of the Tigris and Euphrates on the west, and including Egypt and the Nile as far south as the first cataract. These additions to our teaching appliances have proved to be very useful and interesting.

HEALTH.

The health of the pupils during the last session was generally excellent. We had, however, at different times three cases of diphtheria, fortunately sporadic, not epidemic in their charactor. The isolation of the patient in each case was effected immediately on the disease presenting itself and was as complete as could be desired. Not the slightest evidence could be discovered of any connection between the cases nor could either be traced to any local cause. All three made good recoveries. Why after an interval of two years and while all around were healthful these three young persons between whom there was, as it happened, no association should have been at different times attacked is a problem that may very well puzzle even scientists. Having regard to the isolated nature of the attacks and the entire seclusion of the patients, I deemed it unwise to excite alarm by any public announcements, and everything went on as usual. The event I venture to submit justified my course of action in this respect. A very careful examination of every pupil immediately after his or her arrival since the vacation has been made by Dr. Marquis, our medical officer, and his reports to me of the general condition have been

highly gratifying. While, however, the drainage and trapping arrangements are in, as I believe, the best of order, the plan hitherto pursued in regard to the disposal of sewage has certainly been to say the least most unscientific, and while I do not believe it has been productive of any actually harmful results, I am glad to know that a scheme is viewed with departmental approval that will place the harmlessness of our sewage output beyond all doubt or question.

Discipline.

With the exception of the case already mentioned which resulted in the prompt exclusion of the offender, I had very little trouble or cause for anxiety in connection with discipline. It was gratifying to feel that, while, in some pupils, there was room for amendment, with one or two exceptions at most, all leaving at the end of the session would at the close of the vacation be received again with pleasure. Good discipline in any school, and especially in an institution for the blind, must be looked for chiefly in the quiet and continuous maintenance of order and authority, rather than in occasional exhibitions of firmness or demonstrations of severity. Nothing assures this better than the presence and oversight of a staff of well trained teachers conscientiously concerned for the welfare of their pupils, and that advantage the institution certainly enjoys at the present time.

The Kindergarten.

The adoption of the Kindergarten system for the younger pupils and the appointment of a teacher specially trained for this work, has now been fairly tried and I venture to say with unqualified success. To those who only looked at the Kindergarten superficially the idea of applying it to blind teaching seemed no doubt almost an absurdity. But not so to any who understood the close relationship that existed between Kindergarten instruction and the objective principle that should underlie all attempts at the proper training and education of blind youths. It is in its methods rather than in its principles that the Kindergarten is new to us. Our class of young Kindergarteners has, in the few months it has been under instruction, made excellent progress. Visitors experienced in the work of both blind and seeing Kindergartens have come to the same conclusion in this regard. Nor is it in class work alone the Kindergarten has been a helpful agency. How to manage and control the younger of our pupils, children sometimes not over six to seven years of age, and untrained, untaught youngsters of even a little longer growth, has been hitherto a difficult problem. And yet the tendency—and one too that is to be encouraged—has been, of late years, to increase the proportion of the very young to the whole pupil population. For the ordinary classes, the higher the scholastic acquirements the teacher possesses the better it is for the pupils. Our officers almost invaribly hold a first class certificate or its equivalent representing a high degree of experience in their calling. This has brought them chiefly into contact with and fitted them for teaching pupils of ordinary school age and growth. The mind of the Kindergarten teacher, on the other hand, assimilates itself to the mental condition and wants of children of tender years, grasps their ideas, and learns to adapt itself to their needs and peculiarities. Hence there grows up between the Kindergarten teacher and her class a feeling of attachment which is a powerful instrument for good. In a disciplinary sense, not less than in its relation to physical development and mental culture, the Kindergarten may be in an institution for the blind an instrument of untold value.

Improvements.

No important work in the direction of additions or improvements has been accomplished during the past year. Some substantial repairs in the interior of the building will have to be provided for in the next year's appropriations. The provision during the late vacation of a "Watchman's Detector" recording as it does with undeviating accuracy the presence of the night watchman at given points and at stated hours, is a most valuable guarantee of vigilance and gives additional assurance of safety. On other points connected with protection against fire I have had the pleasure of presenting my views personally and by correspondence.

The First and Last "Want."

It was I must confess with extreme disappointment I found that no appropriation for a gymnasium appeared in last year's estimates. I shall not repeat arguments that have been already used again and again in favor of such an expenditure, but will just state a few propositions no person having any knowledge of the wants and requirements of blind pupils will dream of controverting:—

1. That blind youths have no means of cultivating physical development effectually unless special apparatus is provided for them.

2. That by reason of delicacy of constitution the majority of blind youths need, even more than the seeing, such means of physical training and development.

3. That no institution for the blind is or can be complete without a well constructed and properly furnished gymnasium.

4. That it is now a recognised fact that physical training is a primary necessity in the education of the blind.

5. That the mental and industrial education of the blind is at every point thwarted and obstructed by the want of systematic physical training.

6. That a gymnasium for the blind must be (1) A substantial well warmed building. (2) As nearly as possible a part of the main buildings, accessible without exposure to weather or changes of temperature by all the classes and by both male and female pupils as part of the daily routine of school exercises. (3) Large enough to be used for general exercise when the weather confines the male pupils within doors. When these simple statements of fact are recognized and acted upon the first and last educational want of the Ontario Institution for the Blind will have been supplied.

Grounds, Farm and Garden.

The abundant rains in the earlier months of the late season gave great promise of heavy crops as well as most successful tree culture. But by the recurrence for the third year of a protracted summer drought the pleasing anticipations at first indulged have been sadly blighted. Our hay crops were excellent, but the almost total absence of rain for two months, just at the time when the potato and root crops most needed moisture, has reduced the yield by at least one-half, and our supply will have to be supplemented by purchases from other sources. The effect of the drought on the newly planted young trees has been no less detrimental. I trust the time is not far distant when we may have some artificial means of supplying water to our trees neither so cumbrous nor so tedious as those we are now of necessity constrained to adopt.

Acknowledgments.

I am again privileged to acknowledge the kind interest taken by the clergy of Brantford and the citizens generally in the welfare and prosperity of this Institution. Nor must I forget to mention the most valuable help rendered in cases of sickness by the nursing staff of our well conducted city hospital.

I have the honor to be,
Sir,
Your obedient servant,

A. H. DYMOND,
Principal.

Brantford, October 1st, 1889.

EXAMINER'S REPORT.

Literary Department.

The classes were examined by Mr. Wilkinson, M.A., Principal of the Brantford Central School, and by Dr. Kelly, Public School Inspector. Their report is as under :—

In accordance with your instructions the undersigned examined the litrary classes in the Institution for the Blind at Brantford, commencing at 9 o'clock, a.m., the 27th of May, and continuing three days. The various school rooms were found in a satisfactory state and the order throughout good. The results of the examination show that the teachers in the various departments have discharged their somewhat onerous duties faithfully and efficiently. The classes are grouped under the names of the several teachers.

(a) *Mr. Wicken's Classes.*

1. *Arithmetic*—Class B, limits: simple and compound numbers. Fractions, problems in these. The maximum was 100—the number in the class 14—of these, five obtained over 50 per cent. and none fell below 33⅓ per cent. The answering was, on the whole, fair.

2. *Reading*—Class A, 17 in number; maximum 100. The reading was in prose and verse. All obtained half marks or over. Enumeration, tone, pitch, emphasis, etc., generally satisfactory.

3. *English Grammar*—Class B, 13 in number, 4 boys and 9 girls. Have acquired a fair knowledge of the elements of English grammar. Understood the formation of sentences, and parse and analyze simple ones very well. Their use of English, as shown in their answers, is correct. Examples of false syntax were very well corrected, most of the pupils furnishing good reasons for the corrections made.

4. *Writing*—Class A. To test their composition and penmanship, the pupils were asked to write a letter from New York describing a visit they had made to that city. The letter was well executed, the writing being more legible than that of last year. The composition, on the whole, was fair. In spelling and capitalizing very few mistakes were made.

5. *Physiology and Hygiene*—A class solely of boys. They were questioned on the structure of the human body, the location and functions of the various organs and the general laws of health. They have a fair knowledge of respiration, digestion and circulation, and some acquaintance with the nervous system. The class is younger than that of previous years, but has an evident relish for the study and has acquired a good degree of knowledge concerning it.

6. *Ethnology and Geography*—Class A. The examination of this class was very satisfactory. In ethnology, Huxley's classification had been followed and very well mastered. The answers were full and intelligent, showing that considerable care had been taken to give the pupils the required information. The class was also examined on the geography of Asia, its climate, productions, religions; customs, inhabitants, as well as in many other incidental matters. The results were uniformly good. No class in any school could have done any better.

(b) *Miss Gillin's Classes.*

1. *Geography*—Class B, 17 in number. Limits: United States, South America, in detail, and general review of the Dominion of Canada. The class was submitted to a pretty thorough examination within these limits, and answered with much intelligence and correctness. The maximum value of the answers was 100. Only three fell below half marks and one came very near the maximum.

2. *Writing*—Class D. The penmanship of this class is generally satisfactory, being facile, clean and legible.

3. *English History*—Limit : From Roman Period to reign of Charles I. As usual this class did well. The majority answer with great intelligence. Know the general outline as well as the details accurately. The maximum, 100, was obtained by two.

4. *English Literature*—In this favorite subject there is a class of 21 pupils, comprising the brightest young people of both sexes in the institution. The limit embraces the history of English, French and (this year) Spanish literature. The outline history of English literature from Cædmon down to the present is very well known. Of French literature they have some knowledge of early writers such as the *Trouveres* and *Troubadores* later, of Sir John Froissart, Rabelais and Montaigne, still further down, of Corneille, Racine, Moliere, the Encyclopædists, of Lamartine, Alfred de Musset, Chateaubriand Victor Hugo, etc. In Spanish literature they commence with the Cid and go on to Cervantes, Calderon, Lope da Vega, etc. Don Quixote they have read in part, and in French extracts from the writings of Montaigne, Montesquieu and the maxims of de la Rochefoucauld. Much of the play of the Merchant of Venice they had memorized, being especially well up in the "Trial Scene." Of Matthew Arnold and his writings, too, they knew something. The *viva voce* examination in this subject lasted over two hours and the results were eminently satisfactory to the examiners if not to the examinees.

5. *Arithmetic*—Class C, 21 pupils. Their work consists of problems involving a knowledge of the tables of weights and measures, reduction and the compound rules. Problems covering the limit were solved with speed and accuracy. A bright, hard-working class with the exception of two, who are evidently defective. The evidences of improvement in some is very marked and the attention of all shows careful teaching and wise management.

6. *Grammar*—Class D. The pupils of this class were thoroughly examined in the definitions and general terms used in grammar, and especially as to the knowledge of the inflections of the different parts of speech and the application of them. The subject had been thoroughly taught and a good foundation laid for future work.

7. *Canadian History*—This class was submitted to an examination which embraced the different periods in Canadian History, the principal events in each period and the deeds of its chief men. The pupils evinced a good knowledge of the causes and results of the various important events and a more than ordinary interest in later events—an acquaintance with our constitution and the causes of its origin ; 10 out of the 14 in the class obtained 80 per cent or over.

(c) *Mr. Alexander's Classes.*

1. *Arithmetic*—Class D. A class of 21 present. Work : elementary. Limits : highest section subtract six figures—multiply up to 20×20 in tables or any number up to 100 by factors, divide any number up to 20, and simple problems. This section, considering age, etc., did fairly well. The juniors are just beginning.

2. *Grammar and Philology*—Class A. 14 in number. The examination was both oral and written. A stanza of Grey's Elegy was correctly analysed and the words parsed. The written examination was mainly on philology, Earle's Book being the one used. The questions were of such a character as to constitute a thorough test of their knowledge of this subject being quite up to the standard usually set for second class certificates. They did better in the oral than in the written examination. However, in the combined results nine got over 50 per cent. of the maximum. There was abundant evidence afforded of careful painstaking teaching.

Reading—Class A. ; embracing 4 subdivisions, the majority reading from embossed type, a few from point print. The enunciation, expression and emphasis were generally satisfactory.

4. *Writing*—B. Class. The work here was very good, the letters were well formed and the movements facile.

5. *Geography*—Class C. This class was examined on the geography of the Dominion, each province being taken in order. The knowledge of the pupils was thoroughly tested as to the locations of the principal cities and towns and their railway connections. They were also required to find on the raised map the chief capes, islands gulfs, etc., and were examined on all parts of interest connected with each. A good general knowledge was manifested of the climate and productions of the several provinces. Mr. Alexander has made a number of raised maps, so that each desk is furnished with one. The teaching had been thorough and the results of the examination were highly creditable.

(d) *Miss Walsh's Classes.*

1. *Grammar*—C. Class. A class of 19. Limit: the indicative mood and its tenses, analysis of simple sentences and parsing. The analysis and parsing of this class is all that could be desired. The answers were very full and accurate and the teaching had evidently been careful and exhaustive.

2. *Geography*—Class D, 2 divisions, 20 present. Limit: Ontario, definitions, counties, towns, railroads, rivers, lakes, islands, etc. Very fair work done. Answers generally accurate and full.

3. *Object Lessons*—11 present. Specimens submitted for examination: humming bird, seal, armadillo, fox, kangaroo, squirrel, porcupine. Of the distinctive anatomical features, the habits and habitat of the several specimens the children had a most intelligent appreciation and seemed to take delight in exhibiting their knowledge.

4. *Arithmetic*—Class A, 15 in number. The order and discipline of the class of very high character and tone exceellent. The examination was of a practical character, questions relating to stocks, interest, measurement of lumber, surfaces and solids with a few involving analysis. All the problems were solved correctly, one pupil obtaining correct answers to all and three others to all but one. The average was 70 per cent. Miss Walsh has evidently worked hard and successfully and has made the study of arithmetic a pleasure to her class.

5. *Reading*—Class B, 11 pupils and 4 more attached for individual instruction. Distinguish similar forms with great readiness, enunciation very clear, expression good, understand what they read and the meanings of the more difficult words. On the whole did well. Their spelling is fair but not quite equal to the reading.

6. *Elocution*—The class was examined at considerable length in this subject which had been taught in a very sensible and thorough manner especially as to the elements. Pupils have correct notions of the uses of the organs of speech and have been so trained as to produce at command such tones as may be required,—have a nice appreciation of the pitch, movement and tone united to the proper reading of the different species of composition—illustrating by quotations, recitations, etc., the principles examined. This new subject in Miss Walsh's hands promises to be as useful as it is evidently popular.

(e) *Miss Johnson's Classes.—Kindergarten, etc.*

1. *Reading*—Class E, consisting of pupils of different grades from alphabet up to a few reading in the first-book. The work had been well done and a good foundation laid. There was abundant evidence that much care and patience had been exercised to produce the results witnessed. A large amount of good work has been accomplished in a short time. Besides the reading we observed the folding, weaving and modelling done by the pupils. The work was remarkable and fully proved the suitability of the Kindergarten for the instruction of the blind. An examination in connection with the third gift was witnessed in which many of the forms possible were shown by the pupils. The singing of Kindergarten songs and the marching to the music formed an interesting part of the work and was very nicely done.

(f) *Mr. Connolly's Classes.*

1. The gymnastic exercises conducted by this teacher were of a highly satisfactory character. Two divisions, one of 12 pupils, and another of 7 competed for prizes, and so close were the merits of the contestants that it was extremely difficult to decide on the victor.

2. *Reading*—Class A, class of 13. Results satisfactory.

MUSICAL DEPARTMENT.

This was again examined by Professor Aldous, of Hamilton. A copy of his report is given below :

I beg to submit the report on the examinations that I held in the Institution for the Blind, in Brantford, on Thursday, May the 30th and Friday, May 31st. I was pleased to note the continued good results of the graded system, the pupils being divided between Mr. Williams, Miss Callaghan, Miss Moore and some pupil-teachers. I was pleased also to find considerable progress in many of the pupils, some of whom are now well advanced musicians in several branches. The organ playing was very interesting too, the pieces of some of the senior pupils being brilliant and artistic. In this connection I would strongly recommend the insertion of the pipes for the *clarinet* stop, the absence of which deprives many attractive organ pieces of their full effect. Also, from constant use, the pedals are beginning to get somewhat noisy ; a fault which Mr. Warren could remedy in a short time and at little expense.

Mrs. Howson, whose absence from illness was noticed last year, was found at her post, and under her care the vocal class has been going through some careful drill. I still noticed a weakness in the male voices. Surely some among the male students must have an ambition to shine as vocalists.

The violin class, under Mr. Baker, was not so large as I had hitherto found it ; but the work done was just as good.

The thoughtful and thorough work done by the Harmony Classes was most gratifying, showing that they are not only well grounded in the rules, but thoroughly understand what they are about.

A new feature was the juvenile theory class in which the younger pupils are thoroughly grounded in the elements of music.

I strongly commend the dictation of music to the pupils for transcription in point-print, which has the treble advantages of

(1) Furnishing each pupil with his own library ;

(2) Making him more self-reliant, etc. ;

(3) Making his progress more steady as well as rapid.

There are some of the tuners, who study under Mr. Raymond, well prepared to go out into the world and earn a good living.

At every visit I am struck by the hearty singing at the daily service, which would put to shame any ordinary congregation.

In closing I must take this opportunity of thanking the Principal and the staff generally, for the kindness and help afforded me during my short visit.

J. E. P. ALDOUS, B.A.,
Cambridge, Eng.

June 12th, 1889.

Maintenance Expenditure

For the year ending 30th September, 1889, compared with preceding year.

Service.	Total expenditure year ending 30th Sept. 1888.	Weekly cost per pupil	Yearly cost per pupil.	Total expenditure year ending 30th Sept. 1889.	Weekly cost per pupil.	Yearly cost per pupil.
	$ c.	c. m.	$ c.	$ c.	c. m.	$ c,
Medicines and medical comforts	140 25	2 0	1 06	181 12	2 4	1 29
Butcher's meat, fish, poultry, etc	3,090 65	45 0	23 41	3,145 00	43 1	22 46
Flour, bread, etc	886 93	12 9	6 72	1,086 38	14 8	7 76
Butter, etc	1,297 96	19 0	9 84	1,175 39	16 1	8 39
Groceries	2,086 43	30 3	15 80	2,049 72	28 1	14 64
Fruit and vegetables	636 01	9 2	4 82	266 78	3 6	1 90
Bedding, clothing and shoes	790 85	11 5	5 99	640 65	8 4	4 58
Fuel	3,145 83	45 8	23 83	2,802 51	38 5	20 02
Gas, oil, etc	1,029 40	15 0	7 80	1,054 30	14 4	7 53
Laundry, soap and cleaning	341 94	4 9	2 59	349 10	4 7	2 49
Furniture and furnishings	915 67	13 3	6 94	435 62	5 9	3 11
Farm, garden, feed and fodder	1,185 75	17 2	8 98	962 61	13 2	6 87
Repairs and alterations	1,443 79	21 0	10 94	762 09	10 4	5 44
Printing, postage and stationery	606 29	8 8	4 59	704 83	9 6	5 03
Books and educational appliances	1,292 84	18 8	9 80	731 04	10 0	5 22
Miscellaneous	1,593 64	23 2	12 07	1,536 52	21 0	10 97
Salaries and wages	16,226 02	2.36 3	122 92	16,792 93	2.30 6	119 95
	36,710 25	5.35	278 10	34,676 59	4.76	247 69

Average No. of pupils in 1888—132. | Average No. of pupils in 1889—140.

PHYSICIAN'S REPORT.

ROBT. CHRISTIE, Esq.,
Inspector of Prisons and Public Charities,
Province of Ontario.

SIR,—In obedience to the regulations of the Institution for the Education of the Blind, I forward to you in a most incomplete form the Physician's annual report for the year 1889. My appointment as physician to the Institution took place just one year ago, but owing to ill-health I was obliged to spend last winter in the south, and leave my work at the Institution in charge of Dr. Secord, an able and experienced physician of this city. During his attendance one or two sporadic cases of diphtheria appeared among the pupils, but were quickly stamped out by the energetic measures adopted. As this disease is now known to be transmitted frequently through atmospheric influences, and many cases of diphtheria were at the time in the city, not far from the Institution, it is but reasonable to infer that it was through this medium the germ was inhaled by the pupils, who in a delicate condition of health became a ready prey to the disease. There have been no deaths in the Institution since my appointment; indeed the health of the pupils improves under the management and discipline carried out so patiently and thoroughly by the staff. A sufficient amount of exercise will not be taken by the blind unless it is compulsory, and here they are obliged systematically to take it every day, weather permitting.

I cannot close this report without thanking the Principal for his kindness to me during the past year, for in the delicate state of my health, now, I am happy to say, much improved, I was at times quite unable to perform my duties so satisfactorily as I could desire.

I have the honour to be,
Your obedient servant,

D. MARQUIS.

ONTARIO INSTITUTION FOR THE BLIND.

Statistics for Year Ending 30th September, 1889.

I.—Attendance.

	Males.	Females.	Total.
Attendance for portion of year ending 30th Sept., 1872	20	14	34
" for year ending 30th September, 1873	44	24	68
" " " 1874	66	46	112
" " " 1875	89	50	139
" " " 1876	84	64	148
" " " 1877	76	72	148
" " " 1878	91	84	175
" " " 1879	100	100	200
" " " 1880	105	98	203
" " " 1881	103	98	201
" " " 1882	94	73	167
" " " 1883	88	72	160
" " " 1884	71	69	140
" " " 1885	86	74	160
" " " 1886	93	71	164
" " " 1887	93	62	155
" " " 1888	94	62	156
" " " 1889	99	68	167

II.—Age of Pupils.

	No.		No.
Seven years	4	Eighteen years	8
Eight "	7	Nineteen "	6
Nine "	3	Twenty "	10
Ten "	4	Twenty-one "	8
Eleven "	5	Twenty-two "	7
Twelve "	9	Twenty-three years	7
Thirteen "	14	Twenty-four years	4
Fourteen years	10	Twenty-five "	5
Fifteen "	10	Over twenty-five years	22
Sixteen "	15	Total	167
Seventeen "	9		

III.—Nationality of Parents.

——	No.	——	No.
American	2	Norwegian	2
Canadian	65	Scotch	14
English	47	Wendish	2
Irish	24		
French	8	Total	167
German	3		

IV.—Denomination of Parents.

——	No.	——	No.
Baptist	10	Methodist	42
Congregational	5	Presbyterian	31
Children of Peace	1	Roman Catholic	24
Episcopalian	50		
Lutheran	4	Total	167

V.—Occupation of Parents.

——	No.	——	No.
Actor	1	Manufacturer	1
Agents	5	Marble-worker	1
Baker	1	Merchants	10
Book-keepers	3	Miller	1
Blacksmiths	6	Notary Public	1
Butchers	1	Painters	2
Carpenters	8	Physician	1
Carpet-cleaner	1	Sailor	1
Carriage builder	1	Sheriff	1
Clerk	1	Soldier	1
Conductor	1	Stone-mason	1
Contractor	1	Shoe-makers	4
Clergyman	1	Surveyors	3
Cabinet-makers	3	Tailor	1
Drover	1	Tanner	1
Engineers	5	Tinsmiths	3
Farmers	51	Tradesman	1
Gardeners	3	Veterinary surgeon	1
Harness-makers	2	Unknown	7
Hotel-keeper	1		
Laborers	28	Total	167

VI.—Cities and Counties from which pupils were received during the official year ending 30th September, 1889.

County or City.	Male.	Female.	Total.	County or City.	Male.	Female.	Total.
District of Algoma	.....	1	1	District of Muskoka	2	.....	2
City of Belleville	.....	1	1	" Nipissing	1	.....	1
County of Brant	2	2	4	County of Norfolk	1	1	2
City of Brantford	2	2	4	" Northumberland	.....	1	1
County of Bruce	1	4	5	" Ontario	2	4	6
" Carleton	1	.....	1	City of Ottawa	4	.....	4
" Dufferin	1	1	2	County of Oxford	.....	1	1
" Dundas	.....	1	1	" Peel	1	.....	1
" Durham	1	.....	1	" Perth	1	.....	1
" Elgin	1	2	3	" Peterboro'	2	.....	2
" Essex	3	4	7	" Prince Edward	2	.....	2
" Frontenac	1	.....	1	" Prescott	1	.....	1
" Glengarry	3	.....	3	" Renfrew	2	3	5
" Grenville	.....	1	1	" Russell	.....	.....	.....
" Grey	1	4	5	City of St. Catharines	.....	.....	.....
City of Guelph	1	.....	1	" St. Thomas	3	1	4
County of Haldimand	3	2	5	" Stratford	.....	.....	.....
" Halton	3	1	4	County of Simcoe	.....	4	4
City of Hamilton	3	3	6	" Stormont	3	1	4
County of Hastings	1	1	2	City of Toronto	15	.....	15
" Huron	1	3	4	County of Victoria	1	1	2
City of Kingston	3	1	4	" Waterloo	1	1	2
County of Kent	.....	1	1	" Welland	1	.....	1
" Lambton	6	4	10	" Wellington	4	1	5
" Leeds	1	.....	1	" Wentworth	.....	2	2
" Lanark	1	.....	1	" York	7	5	12
" Lennox	2	.....	2	North-west Territory	.....	1	1
" Lincoln	1	1	2				
City of London	2	1	3	Total	99	68	167
County of Middlesex	.....	.....	.....				

VII.—Cities and Counties from which pupils were received from the opening of the Institution till 30th September, 1889.

County or City.	Male.	Female.	Total.	County or City.	Male.	Female.	Total.
City of Belleville	3	1	4	District of Muskoka	3	.....	3
County of Brant	5	5	10	County of Norfolk	6	6	12
City of Bradford	7	6	13	" Northumberland	2	7	9
County of Bruce	5	9	14	" Ontario	6	7	13
" Carleton	2	1	3	City of Ottawa	9	1	10
" Dufferin	1	1	2	County of Oxford	2	3	5
" Dundas	2	2	4	" Peel	1	1	2
" Durham	2	3	5	" Perth	2	8	10
" Elgin	3	3	6	" Peterboro'	10	2	12
" Essex	6	10	16	" Prince Edward	3	2	5
" Frontenac	5	2	7	" Prescott	1	.....	1
" Glengarry	5	.....	5	" Renfrew	7	5	12
" Grenville	2	1	3	" Russell	1	1	2
" Grey	6	10	16	City of St. Catharines	2	.....	2
City of Guelph	2	2	4	" St. Thomas	3	1	4
County of Haldimand	4	4	8	" Stratford	2	.....	2
" Halton	5	1	6	County of Simcoe	4	9	13
City of Hamilton	9	8	17	" Stormont	4	.....	4
County of Hastings	5	3	8	City of Toronto	27	14	41
" Huron	6	7	13	County of Victoria	4	2	6
City of Kingston	5	3	8	" Waterloo	5	3	8
County of Kent	6	4	10	" Welland	4	2	6
" Lambton	9	3	12	" Wellington	9	6	15
" Leeds	7	1	8	" Wentworth	7	7	14
" Lanark	1	1	2	" York	15	10	25
" Lennox	3	1	4	Province of Quebec	2	.....	2
" Lincoln	3	3	6	North-west Territory	.....	1	1
City of London	7	8	15				
District of Nipissing	1	.....	1	Total	275	209	484
County of Middlesex	7	7	14				

VIII.—Cities and Counties from which pupils were received who were in residence on 30th September, 1889.

County or City.	Male.	Female.	Total.	County or City.	Male.	Female.	Total.
District of Algoma		1	1	County of Middlesex			
City of Belleville		1	1	District of Muskoka	1		1
County of Brant	2	2	4	" Nipissing	1		1
City of Brantford	2	2	4	County of Norfolk		1	1
County of Bruce	1	2	3	" Northumberland		1	1
" Carleton	1		1	" Ontario	1	4	5
" Dufferin	1	1	2	City of Ottawa	2		2
" Dundas		1	1	County of Oxford		1	1
" Durham	1		1	" Peel			
" Elgin	1	2	3	" Perth	1		1
" Essex	2	4	6	" Peterboro'	1		1
" Frontenac	1		1	" Prince Edward	2		2
" Glengarry	3		3	" Prescott	1		1
" Grenville		1	1	" Renfrew	1	3	4
" Grey	1	3	4	" Russell			
City of Guelph	1		1	City of St. Catharines			
County of Haldimand	3	2	5	" St. Thomas	2	1	3
" Halton	2	1	3	" Stratford			
City of Hamilton	3	2	5	County of Simcoe		3	3
County of Hastings		1	1	" Stormont	2	1	3
" Huron	1	1	2	City of Toronto	13		13
City of Kingston	3	1	4	County of Victoria		1	1
County of Kent		1	1	" Waterloo	1	1	2
" Lambton	5	4	9	" Welland	1		1
" Leeds	1		1	" Wellington	2	1	3
" Lanark	1		1	" Wentworth		1	1
" Lennox	1		1	" York	6	5	11
" Lincoln	1	1	2				
City of London	1		1	Total	77	58	135

TWENTIETH ANNUAL REPORT

OF THE

Inspector of Prisons & Public Charities

UPON THE

HOSPITALS

OF THE

PROVINCE OF ONTARIO,

BEING FOR THE YEAR ENDING 30TH SEPTEMBER,

1889.

PRINTED BY ORDER OF THE LEGISLATIVE ASSEMBLY.

TORONTO:
PRINTED BY WARWICK & SONS, 68 AND 70 FRONT STREET WEST.
1890.

Office of the

Inspector of Prisons and Public Charities, Ontario,

Parliament Buildings, Toronto, October, 1889.

Sir,—I have the honor to transmit herewith, to be presented to His Honour. the Lieutenant Governor, the Twentieth Annual Report upon the Hospitals of the Province of Ontario, being for the official year ending on the 30th September, 1889.

I have the honour to be, Sir,

Your most obedient servant,

W. T. O'REILLY,

Inspector.

The Honourable

J. M. Gibson, M.P.P.,

Secretary for the Province of Ontario,

Toronto.

CONTENTS.

	Page.
Additions made to list of Hospitals aided by the Province	3
Establishment of additional Hospitals spoken of	3
Summary of number of patients treated since 1878	4
Increase in patients treated in Hospital	4
Increase in number of patients general	4
Grants to Hospital, summary of	5
Cost of maintaining Hospitals	5
Movements of patients in each Hospital, table shewing	6
Sex, religious denominations and nationalities of patients, table shewing	7
Diseases, table of	8-10
Collective and average stay of patients, table shewing	11
Deductions to be made from aggregate stay of patients, table shewing	12
Revenue of Hospitals, table of	13
Grants earned by Hospitals, table of	14
Basis upon which Statutory Aid is granted	14
Maintenance expenditures, table of	15
Average cost in detail, table of	16
Average cost per patient in each Hospital, 1882 to 1889	17
Proportion of maintenance of Hospitals paid by Government, table shewing	18
Separate reports upon Hospitals	19-72
General Hospital, Toronto	19-23
City Hospital, Hamilton	23-25
Hospital, Kingston	25-28
Hotel Dieu Hospital, Kingston	28-30
General Protestant Hospital, Ottawa	30-33
Roman Catholic Hospital, Ottawa	33-35
House of Mercy Lying-in Hospital, Ottawa	36-38
General Hospital, London	38-40
General and Marine Hospital, St. Catharines	40-53
General Hospital, Guelph	53-55
St. Joseph's Hospital, Guelph	55-57
General Hospital, Pembroke	57-59
General Hospital, Mattawa	59-61
John H. Stratford Hospital, Brantford	61-63
St. Joseph's Hospital, Port Arthur	63-65
Belleville Hospital	65-67
St. Vincent De Paul Hospital, Brockville	67-70
The Brockville General Hospital, Brockville	70-72

HOSPITALS.

TWENTIETH

ANNUAL REPORT

OF THE

INSPECTOR OF PRISONS AND PUBLIC CHARITIES

FOR THE

PROVINCE OF ONTARIO.

OFFICE OF THE
INSPECTOR OF PRISONS AND PUBLIC CHARITIES,
PARLIAMENT BUILDINGS,
Toronto, December, 1889.

To the Honourable SIR ALEXANDER CAMPBELL, K.C.M.G.,
Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR :—

I beg to submit herewith the Twentieth Annual Report upon the Hospitals of Ontario, being for the official year ending 30th September, 1889.

I have the honour to be,
Your Honour's most obedient servant,

W. T. O'REILLY,
Inspector.

HOSPITALS.

There are two new hospitals added to the list this year, namely, St. Vincent De Paul Hospital, Brockville, and Brockville General Hospital, of Brockville. Both of these hospitals have become entitled to grants under the statute.

The total number of hospitals on the list for aid from the funds of the Province is now eighteen, but there are several new hospitals now in course of erection in the Province, in respect to which application for aid will no doubt be made in due course.

There seems to be a tendency, under the stimulus of the Government aid, to multiply the number of hospitals in the province very considerably, and it would seem to me a matter worthy of consideration, whether, considering the very large sum that is now paid annually out of the funds of the Province in support of hospitals, the Government should not have some voice in deciding as to the necessity or propriety of erecting hospitals in different places before the enterprise is undertaken, rather than have these hospitals erected without the knowledge of the Government, and aid claimed as a matter of right under the Statute, without reference to the needs of the locality or part of the country in which the hospital is situated.

I apprehend that Government aid is given with a view to the usefulness of these institutions to the people of the Province as a whole, and not to any particular locality; and so it would seem that two hospitals, for example, in one small town is an unnecessary waste of energy and capital.

The Legislature is called upon to vote, in respect of this particular branch of charity, no less a sum than $68,556 this year—and it is an increasing amount every year—and averages no less than 39.03 per cent. of the whole cost of maintenance of these institutions.

With this large proportion of the expenditure paid by the Government, it would seem, I think, that the consent of the Government should be first had before any more hospitals are erected.

A glance at Table No. VIII. will shew the daily cost per patient for maintenance in each of the hospitals, and on Table No. XI. may be seen the

proportion in each case which is paid by the Legislature. This ranges from 55.28 per cent., or considerably more than half, down as low, in one instance, as 26.79 per cent.

There are not less than four hospitals which are receiving from the Government more than half the whole cost of maintenance of patients, and several others whose percentage of Government aid reaches very closely upon half.

Of the amount which the Legislature chooses to expend upon these charities it does not become me to speak; nor does it become me to say one word which will check in any way the multiplication of useful charities in any part of the Province; but I think I may call attention to the proportion which the Government grant bears to the whole expenditure, and to suggest the enquiry whether that proportion does not offer a premium, as it were, to the undue multiplication of such institutions at points where they may not be needed, or their duplication at points where the population does not justify it.

If it were made necessary to take the opinion of the Government before the establishing of these hospitals as to their advisability or necessity, it might tend to a more judicious distribution of the funds devoted to this purpose.

It will be seen from the statement below that in twelve years the number of persons treated in the hospitals of the Province has nearly doubled, and that the increase is very considerable each year and very constant, the ratio being much greater than the increase of the population of the Province.

The following comparative statement shews the numbers treated in all the hospitals in each of the past twelve years, with the increase or decrease in each successive year as the case may be:—

		Increase.	Decrease.
1878	4,372	295	..
1879	4,612	240	..
1880	5,302	690	..
1881	5,257	...	45
1882	6,032	775	..
1883	6,238	206	..
1884	6,369	131	..
1885	6,617	248	..
1886	7,035	418	..
1887	7,522	487	..
1888	8,292	770	..
1889	8,561	269	..

Tables VI. and VII. shew the manner in which the amounts the Legislature will be asked to vote as grants to the hospitals, are made up. The following

statement is a summary of the totals of these tables, and shews the sums which will be asked for each hospital as well as the total.

General Hospital, Toronto	$22,051 32
City Hospital, Hamilton	7,894 17
General Hospital, Kingston	4,054 20
Hotel Dieu, Kingston	2,907 69
General Protestant Hospital, Ottawa	3,540 95
Roman Catholic Hospital, Ottawa	5,167 42
House of Mercy Lying-in Hospital, Ottawa	1,929 09
General Hospital, London	4,828 44
General and Marine Hospital, St. Catharines	2,117 48
General Hospital, Guelph	3,097 25
St. Joseph's Hospital, Guelph	2,755 94
General Hospital, Pembroke	1,201 11
General Hospital, Mattawa	1,221 30
J. H. Stratford Hospital, Brantford	2,534 41
St. Joseph's Hospital, Port Arthur	1,286 84
Belleville Hospital, Belleville	1,041 13
St. Vincent De Paul Hospital, Brockville	536 52
The Brockville General Hospital, Brockville	391 20
Total	$68,556 46

The amount asked for in 1888 was $67,016.70, or $1,539.76 less than the above.

In Tables VIII., IX. and X. will be found details of the cost of maintaining the various hospitals. The daily cost per inmate in 1889 was 69.39 cents per day,

The proportion of the Government grant to the total maintenance expenditure, as shewn in Table XI. increased to 39.03 per cent. as compared with 37.77 per cent. in 1888.

The Tables numbered I. to XI. will be found in the following pages, and following them are the separate reports upon each of the hospitals:—

TABLE I.—Shewing general movements of Patients in each Hospital separately.

HOSPITALS.	Number remaining under treatment on 1st Oct., 1888.	Number admitted during the year ending 30th Sept., 1889.	Number of births in Hospitals during the year.	Total number under treatment during the year ending 30th Sept., 1889.	Number discharged during the year.	Number who died during the year.	Number remaining under treatment on 30th Sept., 1889.
General Hospital, Toronto (including the Burnside Lying-in Branch, and the Andrew Mercer Eye and Ear Infirmary Branch)	236	2560	195	2991	2588	199	204
City Hospital, Hamilton	63	633	31	727	596	49	82
General Hospital, Kingston	45	475	51	571	496	26	49
Hotel Dieu Hospital, Kingston	25	387	.....	412	359	17	36
General Protestant Hospital, Ottawa	36	329	.....	365	275	47	43
Roman Catholic Hospital, Ottawa	40	642	.....	682	592	46	44
House of Mercy Lying-in Hospital, Ottawa	35	161	157	353	309	17	27
General Hospital, London	43	403	23	469	386	32	51
General and Marine Hospital, St. Catharines	18	167	5	190	157	12	21
General Hospital, Guelph	37	397	6	440	380	23	37
St. Joseph's Hospital, Guelph	23	349	.....	372	329	18	25
General Hospital, Pembroke	6	123	.....	129	106	9	14
General Hospital, Mattawa	14	197	.....	211	188	10	13
John H. Stratford Hospital, Brantford	30	257	5	292	247	20	25
St. Joseph's Hospital, Port Arthur	12	124	.....	136	117	8	11
Belleville Hospital	14	98	.....	112	98	8	6
St. Vincent De Paul Hospital, Brockville	4	55	.....	59	46	4	9
The Brockville General Hospital	48	2	.....	50	32	4	14
Totals, 1889	729	7359	473	8561	7301	549	711
" 1888	655	7167	470	8292	7037	582	673

TABLE II.—Shewing Sex, Religious Denominations and Nationalities of Patients under treatment in the various Hospitals.

NAME OF HOSPITALS.	Sex.		Religious Denominations.			Nationalities.					
	Male.	Female.	Protestants of all denominations.	Roman Catholics.	Unknown.	Canadian.	English.	Irish.	Scotch.	United States.	Other Countries.
General Hospital, Toronto	1778	1213	2349	615	27	1359	782	497	151	110	92
City Hospital, Hamilton	433	294	535	181	11	311	181	138	34	39	24
General Hospital, Kingston	305	266	452	119	.....	352	80	83	35	15	6
Hotel Dieu Hospital, Kingston	211	201	64	348	.....	303	37	59	3	9	1
General Protestant Hospital, Ottawa	226	139	320	19	26	205	81	32	17	6	24
Roman Catholic Hospital, Ottawa	332	350	21	652	9	419	31	194	14	10	14
House of Mercy Lying-in Hospital, Ottawa	81	272	130	223	.....	134	76	91	44	2	6
General Hospital, London	249	220	397	68	4	242	102	68	34	11	12
General and Marine Hospital, St. Catharines	127	63	150	40	.....	75	49	32	10	17	7
General Hospital, Guelph	216	224	408	32	.....	269	81	23	47	11	9
St. Joseph's Hospital, Guelph	137	235	29	343	.....	210	7	115	6	8	26
General Hospital, Pembroke	68	61	14	115	.....	69	10	39	3	1	7
General Hospital, Mattawa	186	25	16	185	10	124	27	47	6	.....	7
John H. Stratford Hospital, Brantford	178	114	243	49	.....	168	72	31	9	9	3
St. Joseph's Hospital, Port Arthur	97	39	75	61	.....	67	21	21	10	5	12
Belleville Hospital	69	43	86	26	.....	69	16	13	9	1	4
St. Vincent De Paul Hospital, Brockville	37	22	30	29	.....	35	3	10	2	.....	9
The Brockville General Hospital	28	22	49	1	.....	22	7	9	9	1	2
Totals, 1889	4758	3803	5368	3106	87	4133	1663	1502	413	255	265
" 1888	4579	3713	5208	2997	87	4156	1633	1595	397	230	281

TABLE No. III.

Detailed Analysis of the Diseases or Ailments for which Patients received Treatment for the year ending 30th September, 1889.

DISEASE.	M.	F.	Total.
Ailmentary Canal.			
Colic	14	7	21
Constipation	36	12	48
Dysentery	36	14	50
Diarrhœa	39	26	65
Dyspepsia	65	100	165
Enteritis	13	9	22
Fistula-in-ano	27	1	28
Gastrodynia	5	4	9
Gastritis	42	47	89
Hæmorrhoids	19	5	24
Hœmatemesis	1	2	3
Intestinal worms	.....	2	2
(Esophagus (diseases of)	5	5	10
Pharyngitis	5	1	6
Ptyalism	.....	.....	.....
Peritonitis	15	21	36
Quinsy	11	8	19
Stomatitis	8	3	11
Tonsillitis	32	39	71
Typhlitis	5	2	7
Ulceration of stomach	8	12	20
Perlapsus ani	2	1	3
Intestinal abstenation	3	.....	3
Glossitis	2	.....	2
Brain and Nervous System.			
Apoplexy	12	7	19
Chorea	2	9	11
Catalepsy	.....	2	2
Concussion of brain	4	1	5
" spine	2	.....	2
Compression of brain	7	.....	7
" spine	4	.....	4
Delirum tremens	26	4	30
Epilepsy	31	7	38
Hemiplegia	21	4	25
Hysteria	2	52	54
Inflammation of brain	14	8	22
Insolation	3	1	4
Insomnia	6	9	15
Insanity	15	26	41
Locomotor Ataxia	8	1	9
Myelitis	3	1	4
Neuralgia	30	31	61
Neuroma	6	.....	6
Paralysis, general	25	17	42
Paraplegia	2	6	8
Paralysis Agitans	1	.....	1
Softening of brain	16	1	17
Spina bifida	.....	.....	.....
Sciatica	31	10	41
Spinal curvature	15	2	17
Tubercular menigitis	11	5	16
Tetanus	2	1	3
Hystero epilepsy	.....	1	1
Sclerosis latual	3	.....	3
Bones.			
Anchylosis	11	2	13
Caries	18	6	24
Exostosis	.....	.....	.....
Necrosis	42	8	50
Ostitis	6	3	9
Periostitis	8	3	11
Rickets	.....	1	1
Circulation.			
Angina Pectoris	1	.....	1
Aneurisms	9	.....	9
Atheroma of vessels	1	.....	1
Cyanosis	.....	.....	.....
Disease of aortic valves	7	3	10
" Mitral valves	28	10	38
" Tricuspid valves	.....	..	....
" Pulmonary artery	1	1	2
Endocarditis	2	3	5
Heart, dilation of	11	6	17
" Hypertrophy	5	10	15
" Degeneration	8	5	13
Nævus	4	2	6
Pericarditis	3	3	6
Phlebitis	4	2	6
Phlegmasia dolens	1	2	3
Varicose veins	12	6	18
Heart disease	7	1	8
Dislocations.			
Ankle	5	1	6
Bones of the hand	2	....	2
" foot	4	2	6
Clavical	1	.....	1
Elbow	8	3	11
Femur	4	1	5
Humerus	4	3	7
Knee	8	2	10
Lower maxilla	1	.....	1
Patella	.....	.....	.....
Wrist	4	.....	4
Ear.			
Cophosis	1	.....	1
Otorrhœa	4	3	7
Otitis media	7	4	11
Polypus of ear	1	.....	1
Eye.			
Anarosis	1	.....	1
Amblyophia	1	.....	1
Blepharospasmus	3	.....	3
Cataract	46	29	75
Entropion	3	4	7
Ectropion	.....	1	1
Foreign body in the eye	13	.....	13

TABLE No. III.—*Continued.*

DISEASE.	M.	F.	Total.
Eye—Continued.			
Glaucoma	8	3	11
Iritis	26	10	36
Keratitis	23	6	29
Leucoma			
Ophthalmia	26	17	43
" Catarrhal	15		15
" Purulent	2	1	3
" Granular	19	6	25
" Gonorrhœal	2	2	4
Pterygium	5		5
Retinitis	3		3
Sclerotitis	2		2
Staphyloma	1		1
Strabismus	8	6	14
Trichiasis ciliorum		1	1
Ulcer of cornea	13	14	27
Enucelation	5	1	6
Neuritis	1	3	4
Fractures.			
Bones of the head and face	28	6	34
" Hand	5	3	8
" Foot	6	5	11
" Pelvis	1	1	2
Clavical	12	1	13
Femur	25	4	29
Fibula	12	4	16
Humerus	15	5	20
Patella	3	2	5
Ribs	14	2	16
Radius	6	12	18
Scapula	3	2	5
Sternum			
Tibia	41	3	44
Ulna	5	1	6
Vertibra	5	3	8
Liver.			
Abscess of liver	6	2	8
Acute atrophy of liver	1		1
Cirrhosis	16	2	18
Fatty liver			
Gall stones	1	3	4
Hepatitis	13	8	21
Hydatds of liver		1	1
Jaundice	18	18	36
Waxy liver	1		1
Carcinoma of	1		1
Nose and Face.			
Catarrh	18	26	44
Epulis	1		1
Epistaxis	1	1	2
Lipoma			
Ozœna	1		1
Polypus	3	4	7
Hair lip	1		1
Poisons.			
Gases	2		2

DISEASE.	M.	F.	Total.
Irritant	11	5	16
Lead poisoning	8	1	9
Narcotic	2		2
Narcotic-irritant			
Respiratory Organs.			
Asthma	29	21	50
Bronchitis, acute	77	55	132
" Chronic	59	24	83
Croup	1	4	5
Emphysema of Lung	4	4	8
Empyema	7	6	13
Hydrothorax	5	8	13
Pneumonia	110	65	175
" Pleuro	9	3	12
" Typho	13		13
" Broncho	10	5	15
Pleurisy	30	23	53
Phthisis	163	75	238
Pleurodynia	3	4	7
Tuberculosis	13	13	26
Hæmoptysis	2	1	3
Laryngitis	2	3	5
Spleen.			
Splenitis			
Waxy spleen	2	1	3
Skin.			
Acne		2	2
Boils	7	2	9
Burns and scalds	37	10	47
Chilblains	1	1	2
Carbuncle	13	4	17
Corns and bunions	2	2	4
Elephantiasis	1		1
Eczema	42	22	64
Erythema	5	3	8
Frost bites	19	1	20
Herpes	5	2	7
Impetigo	1	1	2
Intertrigo			
Lupus	2	1	3
Lichen			
Onychia	1		1
Pruritus	3	3	6
Pediculi	2		2
Pityriasis	4		4
Psoriasis	6	2	8
Roseola		5	5
Rupia		2	2
Ringworm	1	4	5
Scabies	26	11	37
Sycosis		1	1
Urticaria	2	3	5
Whitlow	4	6	10
Farus	2		2
Pemphigus	2		2
Ichthyosis		1	1
Urinary Organs.			
Bright's disease, acute	19	6	25

TABLE No. III.—*Continued.*

DISEASE.	M.	F.	Total.
Urinary Organs—Continued.			
Bright's disease, chronic	40	11	51
Balanitis	.....	.....	.....
Bubo	23	6	29
Cystitis	42	20	62
Condyloma	.....	2	2
Diabetes mellitus	12	7	19
" Insipidus	3	1	4
Enlarged prostate	13	.....	13
Epididymitis	7	.....	7
Gonorrhœa	.....	.....	.....
Gleet	30	36	66
Hydrocele	3	.....	3
Hæmatocele	15	.....	15
Incontinence of urine	10	6	16
Pyelitis	2	2	4
Phymosis	4	.....	4
Paraphymosis	.....	.....	.....
Retention of urine	12	5	17
Superative nephritis	1	1	2
Stricture	35	2	37
Spermatorrhœa	5	.....	5
Urinary calculus	9	.....	9
Orchitis	19	.....	19
Hæmaturia	3	2	5
Castration	2	.....	2
Chanchroid	3	.....	3
Women.			
Amenorrhœa	.....	15	15
Abortion	.....	12	12
Dysmenorrhœa	.....	18	18
Erosion of os uteri	.....	26	26
Fistula, recto-vaginal	.....	4	4
" Vesico-vaginal	.....	3	3
Metritis and endometritis	.....	35	35
Menorrhagia	.....	17	17
Ovarian disease	.....	74	74
Parturition	.....	370	370
Premature labour	.....	.....	.....
Uterus, Anteversion of	.....	5	5
" Retroversion of	.....	14	14
" Anteflection of	.....	2	2
" Retroflection of	.....	8	8
" Inversion of	.....	.....	.....
" Prolapsus of	.....	9	9
Womb, Polypus of	.....	1	1
" Fribroid of	.....	8	8
" Cancer of	.....	13	13
Cervix, laceration of	.....	8	8
Perineum, "	.....	20	20
Zymotic and General.			
Anæmia	16	126	142
Anasarca	6	4	10
Chicken pox	.....	.....	.....
Cholera, Asiatic	.....	.....	.....
" Morbus	4	7	11
" Infantum	2	1	3
Chlorosis	.....	15	15
Diphtheria	158	209	367
Dropsy	18	13	31
Erysipelas	32	27	59
Fever, Intermittent	17	13	30
" Remittent	17	5	22
" Scarlet	9	17	26
" Pernicious	.....	.....	.....
Fever, Typho-malarial	18	19	37
" Typhoid	334	132	466
" Typhus	.....	.....	.....
" Cerebro-spinal	.....	.....	.....
" Puerperal	.....	2	2
" Continued	2	4	6
Gout	1	.....	1
Influenza	2	.....	2
Leucocythemia	.....	.....	.....
Measles	34	41	75
Mumps	5	3	8
Pyæmia, septicæmia	8	5	13
Purpura	3	1	4
Rheumatism, Acute	98	38	136
" Chronic	125	41	162
" Gonorrhœal	5	.....	5
Small pox	.....	.....	.....
Scrofula	12	4	16
Syphilis, Primary, Secondary	56	42	98
" Tertiary	12	12	24
" Hereditary	3	1	4
Vaccination	.....	2	2
Whooping cough	.....	.....	.....
Miscellaneous, not otherwise classed.			
Abscess, General	60	23	80
" Psoas	8	5	13
" of breast	.....	10	10
Alcoholism	227	31	258
Amputations	57	2	59
Cancer, Epithelial	28	8	36
" Encephaloid	5	3	8
" Schirrus	11	28	39
" Melanotic	.....	.....	.....
Contusions	77	22	99
Cancers	3	3	6
Opium habit	5	.....	5
Cellulitis	5	10	15
Coxalgia	16	16	32
Debility	84	79	163
Goitre	4	6	10
Gangrene	8	2	10
Gunshot wounds	26	1	27
Hernia	17	6	23
Injuries not otherwise classed	155	40	195
Sprains	32	12	44
Tumors—Fibroid	8	10	18
" Fatty	3	4	7
" Cartilaginous	.....	.....	.....
" Cystic	3	3	6
" Other	12	13	25
Tetanus	2	1	3
Talipes	9	3	12
Ulcers	163	82	245
Synoritis	26	13	39
Varieocele	3	.....	3
Lumbago	4	4	8
Circumcision	1	.....	1
Excision of elbow	.....	1	1
Abdominal section	.....	1	1
Bursitis	.....	3	3
Adenitis	1	2	3
Sarcoma	6	.....	6
Not classed	5	5	10

TABLE IV.—Shewing the collective stay in days of the adult and infant patients; also the average length of time each patient was under treatment.

NAMES OF HOSPITALS.	Number of patients, including infants born.	Collective stay of infants under one year of age.	Collective stay of adult patients.	Total collective stay of adults and infants.	Average stay of each patient, including the faats.
General Hospital, Toronto	2991	2676	75625	78301	27
City Hospital, Hamilton	727	847	27710	28557	40
General Hospital, Kingston	571	1273	16251	17524	28
Hotel Dieu Hospital, Kingston	412	.....	11865	11865	29
General Protestant Hospital, Ottawa	365	.....	15142	15142	42
Roman Catholic Hospital, Ottawa	682	.....	17881	17881	27
House of Mercy Lying-in Hospital, Ottawa	353	2044	9809	11853	33
General Hospital, London	469	377	17461	17838	37
General and Marine Hospital, St. Catharines	190	156	7805	7961	42
General Hospital, Guelph	440	290	11248	11538	27
St. Joseph's Hospital, Guelph	372	.....	11080	11080	29
General Hospital, Pembroke	129	.....	4230	4230	32
General Hospital, Mattawa	211	.....	4071	4071	19
John H. Stratford Hospital, Brantford	292	78	9102	9180	31
St. Joseph's Hospital, Port Arthur	136	.....	4498	4498	33
Belleville Hospital	112	.....	3784	3784	34
St. Vincent de Paul Hospital, Brockville	59	.....	2130	2130	36
The Brockville General Hospital, Brockville	50	.....	1304	1304	14
Totals, 1889	8561	7741	250996	258737	30.23
" 1888'	8292	7947	246269	254216	30.65

TABLE V.—Shewing the deductions which have to be made from the collective stay of the patients for the protracted residence of incurable and lying-in cases. For persons coming within these classes only seven cents per day are allowed.

NAMES OF HOSPITALS.	Collective days stay, exclusive of infants under one year.	Deduct for incurables and lying-in cases, for which only Refuge rate is to be allowed.	Number of days's stay for which Hospital allowance is to be made.
General Hospital, Toronto	75625	2766	72859
City Hospital, Hamilton	27710	1821	25889
General Hospital, Kingston	16251	3570	12681
Hotel Dieu Hospital, Kingston	11865	1544	10321
General Protestant Hospital, Ottawa	15142	4355	10787
Roman Catholic Hopital, Ottawa	17881	856	17025
House of Mercy Lying-in Hospital, Ottawa	9809	4407	5402
General Hospital, London	17461	1782	15679
General and Marine Hospital, St. Catharines	7805	974	6831
General Hospital, Guelph	11248	1205	10043
St. Joseph's Hospital, Guelph	11080	602	10478
General Hospital, Pembroke	4230	.....	4230
General Hospital, Mattawa	4071	.....	4071
John H. Stratford Hospital, Brantford	9102	853	8249
St. Joseph's Hospital, Port Arthur	4498	272	4226
Belleville Hospital	3784	409	3375
St. Vincent de Paul Hospital, Brockville	2130	.....	2130
The Brockville General Hospital, Brockville	1304	.....	1304
Totals	250996	25416	225580
" 1887-8	246269	25692	220577

TABLE VI.—Relative to Income of Hospitals.

NAMES OF HOSPITALS.	Amounts received from municipalities as a grant and for patient's maintenance.	Amounts received from patients for board.	Amount received as income from property or investments belonging to Hospitals.	Subscriptions and donations of private individuals and incidental receipts.	Total receipts from all sources other than the Government grant.	One-fourth of such receipts.	Amount of the 10 cents per day additional grant.
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
General Hospital, Toronto	15971 80	15009 93	13118 77	4820 86	48921 36	12230 34	7285 90
City Hospital, Hamilton	11258 08	1041 87	.....	.....	12299 95	3074 99	2588 90
General Hospital, Kingston	250 00	1535 42	1102 01	2757 27	5644 70	1411 18	1268 10
Hotel Dieu Hospital, Kingston	100 00	835 00	32 40	1974 25	2941 65	735 41	1032 10
General Protestant Hospital, Ottawa	1460 00	1195 35	241 70	4240 13	7137 18	1784 30	1078 70
Roman Catholic Hospital, Ottawa	1025 00	3364 39	120 00	3343 41	7852 80	1963 20	1702 50
House of Mercy Lying-in Hospital, Ottawa	.....	1073 22	181 50	5186 34	6441 06	1610 24	540 20
General Hospital, London	9135 03	2689 69	454 60	.....	12579 32	3144 83	1567 90
General and Marine Hospital, St. Catharines	1600 00	735 65	55 70	1046 92	3438 27	859 56	683 10
General Hospital, Guelph	2000 00	2406 50	.....	1031 94	5438 44	1359 61	1004 30
St. Joseph's Hospital, Guelph	900 00	544 83	300 00	727 95	2472 78	618 20	1047 80
General Hospital, Pembroke	290 00	540 00	.....	590 45	1420 45	355 11	423 00
General Hospital, Mattawa	.....	1275 75	.....	713 49	1989 24	497 31	407 10
John H. Stratford Hospital, Brantford	3000 00	1090 13	.....	69 65	4157 78	1039 45	824 90
St. Joseph's Hospital, Port Arthur	400 00	589 00	.....	750 00	1739 00	434 75	422 60
Belleville Hospital	384 00	984 61	.....	1696 06	3064 67	766 17	337 50
St. Vincent De Paul Hospital, Brockville	.....	409 00	.....	33 05	442 05	110 52	213 00
The Brockville General Hospital, Belleville	200 00	313 25	.....	1437 23	1950 48	487 62	130 40
Totals, 1889	48273 91	35633 59	15606 68	30417 00	129931 18	32482 79	22558 00
" 1888	45606 34	34700 22	14987 24	26148 27	121422 07	30360 52	22057 70

TABLE VII.—Shewing the basis upon which Statutory Aid is granted, and the amount thereof.

NAMES OF HOSPITALS.	Collective days' stay upon which allowance at Hospital rates is based.	Collective days' stay upon which allowance at Refuge rates is based.	Fixed allowance at 20 cents per day.	Supplementary allowance of one-fourth of amount received from all sources other than Government.	Supplemensary allowance at 10 cents per day.	Allowance of 7 cents per day, being Refuge rate for improper cases for Hospital treatment.	Total Government allowance to each Hospital for the year 1890.
			$ c.	$ c.	$ c.	$ c.	$ c.
General Hospital, Toronto	72859	2766	14571 80	.....	7285 90	193 62	22051 32
City Hospital, Hamilton	25889	1821	5177 80	.....	2588 90	127 47	7894 17
General Hospital, Kingston	12681	3570	2536 20	.....	1268 10	249 90	4054 20
Hotel Dieu Hospital, Kingston	10321	1544	2064 20	735 41	.....	108 08	2907 69
General Protestant Hospital, Ottawa	10787	4355	2157 40	.....	1078 70	304 85	3540 95
Roman Catholic Hospital, Ottawa	17025	856	3405 00	.....	1702 50	59 92	5167 42
House of Mercy Lying-in Hospital, Ottawa	5402	4407	1080 40	.....	540 20	308 49	1929 09
General Hospital, London	15679	1782	3135 80	.....	1567 90	124 74	4828 44
General and Marine Hospital, St. Catharines	6831	974	1366 20	.....	683 10	68 18	2117 48
General Hospital, Guelph	10043	1205	2008 60	.....	1004 30	84 35	3097 25
St. Joseph's Hospital, Guelph	10178	602	2095 60	618 20	.....	42 14	2755 94
General Hospital, Pembroke	4230	.....	846 00	355 11	.....	.....	1201 11
General Hospital, Mattawa	4071	.....	814 20	.....	407 10	.....	1221 30
John H. Stratford Hospital, Brantford	8249	853	1649 80	.....	824 90	59 71	2534 41
St. Joseph's Hospital, Port Arthur	4226	272	845 20	.....	422 60	19 04	1286 84
Belleville Hospital	3375	409	675 00	.....	337 50	28 63	1041 13
St. Vincent De Paul Hospital, Brockville	2130	.....	426 00	110 52	.....	.....	536 52
The Brockville General Hospital, Brockville	1304	.....	260 80	.....	130 40	.....	391 20
Total, 1889	225580	25416	45116 00	1819 24	19842 10	1779 12	68566 46
Total, 1888	220577	25692	44115 40	3736 16	17366 70	1798 44	67016 70

TABLE VIII.—Shewing the cost of maintaining the Hospitals; also, the average daily cost per patient, etc.

NAMES OF HOSPITALS.	Total days' stay (excluding infants under one year of age.)	Cost of dietaries.	Salaries, fuel, light, medicines, bedding, and all other expenditures on maintenance account.	Total expenditures for maintenance.	Average cost of each patient per day.
		$ c.	$ c.	$ c.	cents.
General Hospital, Toronto	75625	25436 76	38914 01	64350 77	85.09
City Hospital, Hamilton	27710	6904 83	11422 02	18326 85	66.13
General Hospital, Kingston	16251	3328 62	6226 49	9555 11	58.79
Hotel Dieu Hospital, Kingston	11865	3076 70	2209 77	5286 47	44.55
General Protestant Hospital, Ottawa	15142	2630 66	6355 29	8985 95	59.34
Roman Catholic Hospital, Ottawa	17881	4834 18	5321 38	10155 56	56.79
House of Mercy Lying-in Hospital, Ottawa	9809	2912 54	1922 74	4835 28	49.29
General Hospital, London	17461	5265 41	11305 22	16570 63	94.95
General and Marine Hospital, St. Catharines	7805	1600 78	3637 55	5238 33	67.12
General Hospital, Guelph	11248	2354 80	5340 63	7695 43	68.41
St. Joseph's Hospital, Guelph	11080	2250 77	2365 95	4616 72	41.66
General Hospital, Pembroke	4230	934 15	1536 65	2470 80	58.46
General Hospital, Mattawa	4071	1414 04	1195 83	2609 87	64.10
John H. Stratford Hospital, Brantford	9102	1776 31	2991 14	4767 45	52.38
St. Joseph's Hospital, Port Arthur	4498	867 00	1361 00	2228 00	49.53
Belleville Hospital	3784	1045 79	2930 89	3976 68	$1.05.00
St. Vincent De Paul Hospital, Brockville	2130	498 09	232 31	730 40	34.29
The Brockville General Hospital	1304	300 66	1425 18	1725 84	$1.32.00
Totals, 1889	250996	67432 09	106694 05	174126 14	69.37
" 1888	246269	61986 48	106594 58	168581 06	68.45

TABLE IX.—Shewing the average cost per day of the principal items of consumption in the various Hospitals.

NAMES OF HOSPITALS.	Butcher's meat.	Butter.	Flour, bread and meal.	Milk.	Tea and Coffee.	Potatoes and other vegetables.	Groceries and provisions not enumerated.	Drugs and medicines.	Beer, wine and spirits.	Bedding, napery and general house furnishings.	Brooms, brushes, mops, soap and cleaning appliances.	Fuel.	Light, gas, oil and candles.	Water supply.	Hay and Straw.	Clothing for patients, including boots and shoes.	Ice.	Salaries and wages.	Taxes and insurance.	Coffins and funerals.	Contingencies.	Repairs, ordinary.
	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.
General Hospital, Toronto	12.74	2.26	3.17	5.74	1.29	2.32	3.86	5.38	1.00	6.27	0.48	6.58	2.19	0.56	0.13	0.25	0.51	18.84	0.28	....	0.14	4.87
City Hospital, Hamilton	8.36	2.05	3.01	3.38	1.42	1 62	5.06	4.48	0.76	3.16	0.86	6.02	2.33	1.08	0.11	....	0.70	15.19	2.71	0.08	0.86	1.90
General Hospital, Kingston	3.67	2.95	2.91	3.31	0.84	1.09	5.70	2.36	0.26	1.75	0.54	5.43	1.68	1.38	....	0.04	0.11	16.26	0.09	0.09	2.98	4.25
Hotel Dieu Hospital, Kingston	6.82	3.02	5.66	1.53	2.60	1 16	5.14	1.92	0.36	4.29	1.49	3.11	0.37	0.57	1.32	0.29	0.13	0.49	0.96	0.23	0.42	1.91
General Protestant Hospital, Ottawa	4.60	2.12	2.69	3.69	1.12	0.65	2.49	4.14	1.42	1.09	0.05	5.05	4.35	1.14	0.13	....	0.06	21.36	1.01	0.66	3.62	1.78
Roman Catholic Hospital, Ottawa	8.19	3.97	3.28	3.35	1.10	2.66	4.43	3.44	1.65	2.85	0.67	4.27	1.51	0.87	0.20	0.70	0.28	5.15	2.42	....	3.33	2.26
House of Mercy Lying-in Hospital, Ottawa	9.04	3.85	4.20	4.80	1.67	1.92	4.19	1.20	0.79	2.90	0.95	3.45	0.44	0.98	1.98	1.02	0.20	42.40	0.46	0.08	....	0.92
General Hospital, London	9.11	4.06	2.66	3.95	1.29	0.59	8.48	6.57	1.62	6.83	1.11	7.78	2.95	0.57	0.08	....	0.32	26.40	0.63	0.04	3.13	4.83
General and Marine Hospital, St. Catharines	4.55	1.56	4.25	5.00	0.67	1.20	3.29	5.98	1.31	4 84	0.76	4.29	1.20	0.22	0.06	....	0.23	23.59	0.09	....	0.38	1.82
General Hospital, Guelph	5.36	2.35	3.08	0.28	1.01	0.71	8.15	3.69	0.79	1.89	0.67	8.23	1.62	0.30	0.54	0.10	0.09	17.61	....	....	5.64	1.18
St. Joseph's Hospital, Guelph	4.92	1.42	2.63	0.95	1.75	1.44	7.19	3.50	1.81	2.79	1.60	2.88	0.22	....	0.95	0.54	0.05	1.57	0.62	....	3.02	1.79
General Hospital, Pembroke	6.99	3.19	3.45	0.80	1.76	2.21	3.68	2.94	0.87	4.56	1.21	4.73	1.12	0.65	3.31	2.38	0.24	5.39	0.12	0.71	6.04	1.95
General Hospital, Mattawa	12.29	3.99	9.83	....	1.85	3.69	3.08	1.84	9.76	2.41	0.24	7.37	0.98	3.68	1.43	0.25	0.09	7.37	0.44	0.37	0.89	1.12
John H. Stratford Hospital, Brantford	5.25	2.21	2.26	4.66	0.72	0.29	4.11	2.34	0.91	3.46	0.39	3.49	0.66	....	....	....	0.45	17.29	0.15	0.23	2.37	1.11
St. Joseph's Hospital, Port Arthur	6.34	1.84	2.62	1.89	1.70	1.56	2.33	7.78	2.00	0.89	1.04	4.00	1.00	0.87	....	0.91	....	4.45	....	0.64	3.67	3.22
Belleville Hospital	7.06	2.56	4.26	4.11	1.78	1.12	6.69	7.08	0.33	17.96	0.79	9.29	1.04	1.93	0.32	0.39	0.27	27.02	....	....	7.24	2.09
St. Vincent De Paul Hospital, Brockville	5.63	2.34	2.39	2.44	1.88	0.56	8.13	2.54	0.72	1.47	0.10	1.00	0.30	....	....	0.75	....	....	....	....	2.17	1.77
The Brockville General Hospital	5 26	4.19	3.98	5.52	1.08	1.17	1.84	7.97	2 71	33.88	0.99	13.80	3.07	....	....	....	....	31.39	3.45	....	3.21	5.31

TABLE X.—Shewing the comparative cost per patient daily in the different Hospitals for a period of years.

HOSPITALS.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1839.
	c.	c.	c.	c.	c.	c.	c.	c.
General Hospital, Toronto	64.77	70.46	76.64	85.71	77.71	73.24	84.35	85.09
City Hospital, Hamilton	.....	.....	61.77	59.22	62.70	66.00	68.55	66.13
General Hospital, Kingston	48.04	49.04	51.11	53.00	48.09	56.42	64.06	58.79
Hotel Dieu Hospital, Kingston	53.30	57.35	58.95	45.54	54.85	44.10	49.98	44.55
General Protestant Hospital, Ottawa	43.23	53.82	47.66	47.80	49.67	62.00	53.11	59.34
Roman Catholic Hospital, Ottawa	.....	.....	55.91	52.94	41.09	46.12	49.40	56.79
House of Mercy Lying-in Hospital, Ottawa	37.25	45.57	54.13	47.17	39.58	32.81	28.84	49.29
General Hospital, London	57.90	58.61	74.38	62.72	67.83	73.96	59.51	94.95
General and Marine Hospital, St. Catharines	86.12	71.36	65.99	81.58	60.07	63.43	69.38	67.12
General Hospital, Guelph	71.01	68.60	72.53	64.41	90.87	66.40	63.04	68.41
St. Joseph's Hospital, Guelph	74.13	62.78	51.62	57.05	49.02	52.34	48.52	41.66
General Hospital, Pembroke	74.35	79.05	79.79	65.63	77.67	67.75	85.57	58.46
General Hospital, Mattawa	58.34	69.25	67.79	68.88	94.39	56.98	72.81	64.10
John H. Stratford Hospital, Brantford	.....	.....	.....	$1 23.00	71.51	58.17	68.25	52.38
St. Joseph's Hospital, Port Arthur	.....	.....	.....	47.06	55.12	64.17	47.80	49.53
Belleville Hospital	.....	.....	.....	.....	.....	44.12	74.96	$1 05.00
St. Vincent De Paul Hospital, Brockville	.....	.....	.....	.....	.....	.....	.....	34.29
The Brockville General Hospital, Brockville	.....	.....	.....	.....	.....	.....	.....	$1 32.00
Totals	60.77	62.35	65.10	66.23	63.68	62.99	68.45	69.37

TABLE XI.—Shewing proportion of Maintenance of Hospitals paid by Government.

NAME OF HOSPITALS.	Revenue on Maintenance account exclusive of Government grant.	Government grant in aid of maintenance.	Total revenue for maintenance.	Total expenditure for maintenance.	Percentage of Government grant to total expenditure for maintenance.
	$ cts.	$ cts.	$ cts.	$ cts.	
General Hospital, Toronto	48921 36	22832 44	71753 80	64350 77	35.48
City Hospital, Hamilton	12299 95	6486 90	18786 85	18326 85	35.39
General Hospital, Kingston	5644 70	4318 95	9963 65	9555 11	47.29
Hotel Dieu Hospital, Kingston	2941 65	2251 42	5192 87	5286 47	42.58
General Protestant Hospital, Ottawa	7137 18	4504 90	11642 08	8985 95	50.33
General Roman Catholic Hospital, Ottawa	7852 80	5566 23	13419 03	10155 56	52.84
House of Mercy Lying-in Hospital, Ottawa	6441 06	1914 82	8355 88	4835 28	39.19
General Hospital, London	12579 32	4918 57	17497 89	16570 63	29.62
General and Marine Hospital, St. Catharines	3438 27	1949 47	5387 74	5238 33	37.21
General Hospital, Guelph	5438 44	3048 42	8486 86	7695 43	39.61
St. Joseph's Hospital, Guelph	2472 78	2323 54	4796 32	4616 72	50.33
General Hospital, Pembroke	1420 45	1053 30	2473 75	2470 80	42.63
General Hospital, Mattawa	1989 24	1231 20	3220 44	2609 87	47.17
The John H. Stratford Hospital, Brantford	4157 78	2319 81	6477 59	4767 45	48.66
St. Joseph's Hospital, Port Arthur	1739 00	1231 75	2970 75	2228 00	55.28
Belleville Hospital, Belleville	3064 67	1065 18	4129 85	3976 68	26.79
St. Vincent De Paul Hospital, Brockville	442 05	277 80	719 85	730 40	38 03
The Brockville General Hospital, Brockville	1950 48	....	1950 48	1725 84	....
Totals, 1889	129931 18	67294 50	197225 68	174126 14	39.03
" 1888	121442 07	63674 58	185116 65	168581 06	37.77

INSPECTION REPORTS.

GENERAL HOSPITAL, TORONTO.

The following summaries shew the operations of this Hospital during the official year :—

Movements of patients.

Number under treatment in all departments of the Hospital, 1st October 1888	236	
Admitted	2,560	
Births in the Hospital	195	
Total number under treatment	——	2,991
Discharges, including infants	2,588	
Died	199	
Under treatment, 30th September, 1889	204	
	——	2,991

Of the 2,991 patients treated during the year, 152 males and 72 females were inmates of the Andrew Mercer Eye and Ear Infirmary, and 431 in the Burnside Lying-in branch. The latter number includes 108 male and 87 female children born in the Institution.

Places received from.

From the City of Toronto (including 195 infants born)	2,339	
From the County of York	88	
From other counties of the Province	553	
From United States	11	
From other countries, including immigrants	.....	
	——	2,991

Sex.

Male	1,778	
Female	1,213	
	——	2,991

Nationalities.

Canadian	1,359	
English	782	
Irish	497	
Scotch	151	
United States	110	
Other countries	92	
	——	2,991

Religious denominations.

Protestant	2,349	
Roman Catholic	615	
Other religions, or not known	27	
		2,991

Revenue.

From the Province of Ontario	$22,832 44
From the City of Toronto, in payment of patients' maintenance	14,757 70
From the County of York, in payment of patients' maintenance	570 80
From other Municipalities of the Province	643 30
From paying patients themselves	15,009 93
Income from property belonging to Hospital Trust	13,118 77
Subscriptions, donations, and bequests of private individuals	358 93
From all other sources not above enumerated	4,461 93
Total	$71,753 80

Expenditure.

Butchers' meat	$10,386 43
Butter	1,710 70
Eggs	957 30
Flour, bread and meal	2,400 63
Milk	4,338 37
Tea and coffee	966 50
Potatoes and other vegetables	1,754 73
Groceries and provisions not enumerated	2,922 10
Drugs and medicines	4,065 30
Medical and surgical appliances	2,748 34
Surgical instruments	29 67
Beer, wine and spirits	754 85
Bedding, napery, and general house furnishing	4,742 98
Brooms, brushes, mops, soap, and cleaning appliances	355 66
Fuel	4,978 70
Light—gas, oil, and candles	1,655 77
Water supply	421 00
Hay and straw	100 03
Clothing for patients, including boots and shoes	247 70
Ice	387 17
Salaries and wages	14,250 55
Taxes and insurance	215 10
Contingencies	107 90
Repairs, ordinary	3,683 99
Advertising, stationery, etc.	169 34
Total	$64,350 77

Government grant for 1890.

Allowance for Hospital cases, 72,859 days at 20 cents.	$14,571 80
Supplementary allowance, 72,859 days at 10 cents .	7,285 90
Allowance for improper cases for Hospital treatment 2,766 days at 7 cents	193 62
Total	$22,051 32

INSPECTIONS.

Copies of Mr. Christie's reports to the Government upon this Hospital are annexed :—

I made an inspection of the Toronto General Hospital on the 2nd April, and found therein 131 male and 104 female patients, who with 7 infants made a total of 242 in residence. Of this population 13 males and 9 female were in the Eye and Ear Infirmary, 22 women and 7 infants were in the Burnside Lying-in branch, and the remainder were distributed in the general wards of the institution. By reference to the records it was noted that only 16 of the whole number were admitted to the Institution previous to the 1st January last, and the patient longest in residence was admitted on the 29th Oct., 1888.

The number of indoor patients treated during the month of March, was 454, while the outdoor department provided medicines and treatment for 710 patients during the same period. In addition to this 20 lying-in cases were admitted to the Burnside Hospital. A visit to each of the wards of the institution showed them to be in a good state of order and cleanliness. The patients appeared to be receiving the most kindly and considerate treatment, and the administration of affairs generally to be conducive to satisfactory maintenance of the routine and order of the Hospital.

The training school for nurses continues in active operation, and since its corporation in 1881, seventy pupils have completed the training course of two years, passed the examinations and received their certificates. Forty-seven are now on duty and do the whole of the nursing in the Hospital. 1,316 applications have been received for admission to the school since its opening and of this number 208 have been admitted. A high standard of education and training for this work is thus insured in the case of those who have received certificates.

The drainage of the institution which was constructed in 1854 to empty into the Don river has been found insufficient for the largely increased population of the present, and it has been determined to construct a large drain from about the centre of the building to connect on the north side with the Spruce street sewer, and on the south side with that in Gerrard street. Although this improvement will require a considerable outlay it will no doubt prove to be a great desideratum from a sanitary point of view, and the drainage will be equal to the requirements of the institution for many years to come.

A new fence enclosing the square has also been contracted for, this is required to put the grounds in a presentable shape.

Minor improvements to meet the requirements of the increased population, have been made from time to time. Elevators for the transfer of patients from one floor to another are being built, and will no doubt afford great relief in such cases as require an easy position and care in being moved. Many of the private wards have been refurnished of late, and they now present a very neat and comfortable appearance.

The food supplies were examined and found to be of good quality and well prepared. Every attention and care on behalf of the staff appeared to be exercised for the well being of the patients and in the interests of the Institution generally.

I made a second inspection of the General Hospital, Toronto, on the 21st of October. On that day there were under treatment in the general wards 111 male and 65 female patients. In the Eye and Ear Department there were 9 males and 4 females. And in the Burnside Lying-in Hospital, 14 residents and 8 infants who were born in the institution, making a total of 203 adults and 8 infants. When compared with a like date of the previous year, the present population shows a decrease of 52 patients.

By reference to the record, the names of 11 patients now in residence I found registered previous to the 1st of August last, and of this number the three longest in residence were admitted in June last, and the remaining 8 in July. All the others have been admitted during the past three months.

During the year ending September 30th, 1888, there were 6,121 cases of treatment of outdoor patients; and the outdoor cases treated during the past year ending 30th September, 1889, was 8,063, shewing the large increase of the outdoor work of the past year to be 1,942 cases. In comparison with former years, 54 more indoor patients have been under treatment during the year just closed, yet, the day's stay has been considerably reduced, and the aid granted under the Act will consequently be proportionately less. Whereas, the mortality table of the last year ending September 30th, 1889, recorded 183 deaths, the previous years record was 237. During the year just closed there were 191 births in the Burnside department, showing an increase of 9 over the previous year, and from a comparative point of view, these figures are a good showing in regard to the work accomplished. I found after careful inspection that the whole hospital was neat and clean in every department; and considerable improvements have recently been made in renewing pine floors with hardwood, painting and kalsomining throughout the institution.

The isolated department used for special surgery, has lately had an elevator constructed for the easier conveyance of patients, and this appliance will secure the purpose for which it is to be applied. Many improvements of minor character have been introduced, all of which will tend to ameliorate the condition of the patient, and otherwise add to the advantages of the institution.

The store-rooms in the Steward's department were in excellent order, and the distribution of the supplies were found to be carefully arranged in the five separate rooms, comprising the stores department, namely:—The milk and butter room, groceries and bread room, general store-room, meat room and vegetable room; the latter has been lately added, and is entirely outside of the main building, as a large quantity of such stores are required for use through the winter months; this last storage-room which prevents any of the vegetable odors from reaching the wards, is of no little consequence from a sanitary point of view. All the provisions in store were examined and appeared to be of particularly good and wholesome quality.

The laundry has received new fittings lately, and the work done is quite satisfactory.

During the past year the grounds have also received attention, and now present a neat and tidy appearance.

The old close board fence has been replaced by an open picket one, which is in many respects a great improvement.

A new trunk sewer from Spruce to Gerrard street has been completed, and this also is all-important from a sanitary point of view, and will no doubt prove adequate for the institution for many years to come.

I am glad to note the continued success of the training school for nurses, and that from this department quite a number of qualified young women are sent out every year, and their constant employment is an evidence of the extent to which their services are appreciated.

The records I found well and neatly kept, and contain all necessary information regarding the routine work of the institution.

During my visit I had an opportunity of seeing the practical working of the ambulance system, in removing patients to the hospital. This treasure is now under the control of the Police Commissioners, and the three, one for surgical, one for medical and one for infectious cases, are a great improvement on the former method of transferring patients to the institution.

I saw the mid-day meal served, and noted the care with which it was prepared, and the good condition in which it was served. I also note with pleasure that the interest of the board of Directors in the well-being of the institution, appears to continue, as evidenced by their regular visits, and prompt action in matters pertaining to the Hospital's interest.

CITY HOSPITAL, HAMILTON.

The following summaries shew the operations of this hospital during the official year:—

Movements of patients.

Number under treatment, 1st October, 1888	63	
Admitted	633	
Births in the Hospital	31	
Total number under treatment		727
Discharged	596	
Died	49	
Under treatment, 30th October, 1889	82	
		727

Places received from.

From the City of Hamilton, including births in Hospital	666	
From the County of Wentworth	23	
From other counties in the Province	24	
From United States	82	
From other countries	2	
		727

Sex.

Male	433	
Female	294	
		727

Nationalities.

Canadian	311	
English	181	
Irish	138	
Scotch	34	
United States	39	
Other countries	24	
		727

Religious Denominations.

Protestant	535	
Roman Catholic	181	
Other religions	11	
		727

Revenue.

From the Province of Ontario	$ 6,486 90
From the City of Hamilton	11,119 48
From other Municipalities in the Province	138 60
From paying patients themselves	1,041 87
Total	$18,786 85

Expenditure.

Butcher's meat	$2,315 25
Butter	569 03
Flour, bread and meal	835 44
Milk	937 91
Tea and coffee	392 45
Potatoes and other vegetables	450 11
Groceries and other provisions not enumerated	1,404 64
Drugs and medicines	1,241 59
Surgical instruments	268 45
Beer, wine and spirits	209 48
Bedding, etc.	876 73
Brooms, brushes, mops, soap and cleaning appliances	238 32
Fuel	1,667 21
Light—gas, oil and candles	649 26
Water supply	300 00
Hay and straw	31 81
Clothing for patients, including boots and shoes	.....
Ice	194 90
Salaries and wages	4,208 41
Taxes and insurance	750 00
Coffins and funerals	21 00
Contingencies	238 89
Repairs, ordinary	525 97
Total	$18,326 85

Government grant for 1890.

Allowance for Hospital cases, 25,889 days at 20 cents	$5,177 80
Supplementary allowance, 25,889 days at 10 cents -	2,588 90
Allowance for improper cases for hospital treatment 1,821 days at 7 cents - - - - - -	127 47
Total - - - - - - - - -	$7,894 17

INSPECTIONS.

Copies of the reports made by me to the Government upon this Hospital are annexed:—

I made an inspection of the City Hospital, Hamilton, on the 22nd May.

There were in residence on that date 52 men, 38 women, and 7 children, a total of 97 patients.

House cleaning was in progress at the time of this visit. and the institution was in a state of considerable untidiness in consequence. I did not, therefore, have an opportunity of seeing the place to advantage, but the work appeared to be going on in a very satisfactory manner.

I made a second inspection of the City Hospital, Hamilton, on the 6th of December.

There were 86 patients on that date, viz., 44 males and 42 females.

I did not find the hospital very well kept. It is a city institution, and under aldermanic control, and therefore, a high degree of excellence is not to be expected. It is a great pity that this hospital could not be emancipated from municipal control, and placed in the hands of an independent board composed of gentlemen who would not have any "log-rolling" to do. For several weeks past, the affairs of this hospital have been the subject of newspaper discussion in this connection.

All experience shows the great necessity which exists for having an institution like this free from municipal politics, if it is ever to rise to the standard of efficiency which it ought to reach, and which it might easily attain to under independent control.

GENERAL HOSPITAL, KINGSTON.

The following summaries show the operations of this Hospital during the official year:—

Movements of patients.

Number under treatment, 1st October, 1888 - - -	45	
Admitted - - - - - - - - - - -	475	
Births in hospital - - - - - - - - -	51	
Total number under treatment - - - -	——	571

Discharged	496	
Died	26	
Under treatment, 30th September, 1889	49	
	——	571

Places received from.

From the City of Kingston (including births)	339	
From the County of Frontenac	110	
From other Counties of the Province	112	
From the United States	10	
From other countries	..	
	——	571

Sex.

Male	305	
Female	266	
	——	571

Religious Denomination.

Protestant	452	
Roman Catholic	119	
	——	571

Nationalities.

Canadian	352	
English	80	
Irish	83	
Scotch	35	
United States	15	
Other countries	6	
	——	571

Revenue.

From the Province	$4,318 95
From the County of Frontenac	250 00
From patients themselves, for maintenance and treatment	1,535 42
From property belonging to the Hospital	1,102 01
From subscriptions, donations and bequests from private individuals	1,335 95
From all other sources, not enumerated	1,421 32
	$9,963 65

Expenditure.

Butcher's meat	$ 596 82
Butter	480 66
Flour, bread and meal	473 20
Milk	537 50
Tea and coffee	137 12
Potatoes and other vegetables	176 61
Groceries and provisions, not enumerated	926 71
Drugs and medicines	382 76
Surgical instruments	190 33
Beef, wine and spirits	42 50
Bedding, napery and general housefurnishings	285 20
Brooms, brushes, mops, soap and cleaning appliances	86 67
Fuel	881 99
Light, gas, oil and candles	273 21
Water supply	212 65
Clothing for patients	6 73
Ice	18 00
Salaries and wages	2,642 50
Taxes and insurance	15 30
Coffins and funerals	14 20
Contingencies	484 05
Repairs, ordinary	690 40
Total	$9,555 11

Government grant for 1890.

Allowance for Hospital cases, 12,681 days, at 20 cents per day	$2,536 20
Supplementary allowance, 12,681 days, at 10 cents	1,268 10
Allowance for improper cases for Hospital treatment, 3,570 days, at 7 cents	249 90
Total	$4,054 20

INSPECTIONS.

Copies of the reports made to the Government upon this hospital by Mr. Christie are annexed :—

I made an inspection of the Kingston General Hospital on the 9th May, and on visiting the several wards, saw all the patients then being cared for. In the male wards there were 26 patients, in the female ward 21, and in the lying-in department, 3 infants, making a total population of 54 in residence.

Up to date in the present year, 321 have been admitted, and for a like period in the previous year, 316, shewing a slight increase in the number of patients under treatment during the current year.

I note that while the number of admissions are increasing, the days' stay have decreased, shewing that active practice prevails in the treatment of patients.

Several minor improvements and structural alterations have been made since my last visit.

An attic heretofore unused has been fitted up, and the Institution will now have ample accommodation. Plumbing improvements are also in progress.

The books were in good order and properly kept.

In the training school at the time of my visit, the nurses were reported to be making good progress, and the class was giving satisfactory evidence of interest and intelligence in the faithful performance of their duties.

I made a second inspection of General Hospital, Kingston, on the 26th September:—

On that day there were 54 patients, 26 males and 25 females, together with 3 infants in charge. By reference to the records, I find that the number of cases under treatment during the past year has been about as many as that of the preceding year.

Some structural alterations and improvements have been made since the date of my last visit.

A lying-in room has been provided, which has heretofore been recognized to be a felt want, and the provision made will add much to the comfort of the patients in the future.

The death rate during the past year has been very low, not quite five per cent., which is a very creditable showing, in view of the number and character of the cases under treatment.

A great improvement could be made by refitting the basement, in which if apartments were properly inclosed would be well adapted for store-rooms, etc., of all kinds, and the work of the Institution as it grows into more importance would be better systematized, and would be more easily looked after than it can possibly be in its present condition.

HOTEL DIEU HOSPITAL, KINGSTON.

The following summaries shew the operations of this Hospital during the official year:—

Movements of patients,

Number under treatment 1st October, 1888	25	
Admitted	387	
Total number under treatment		412
Discharged	359	
Died	17	
Under treatment 30th September, 1889	36	
		412

Places received from.

From the City of Kingston	185	
From the County of Frontenac	119	
From other counties of the Province	90	
From United States	11	
From other countries	7	
		412

Sex.

Male	211	
Female	201	
		412

Nationalties.

Canadian	303	
English	37	
Irish	59	
Scotch	3	
United States	9	
Other countries	1	
	——	412

Religious denominations.

Protestant	64	
Roman Catholic	348	
	——	412

Revenue.

From the Province of Ontario	$2,251 22
From Municipalities	100 00
From patients themselves, for maintenance and treatment	835 00
Income from investments	32 40
Subscriptions, donations and bequests	1,578 00
From other sources not enumerated	396 25
Total	$5,192 87

Expenditure.

Butchers' meat	$809 51
Butter	357 79
Flour, bread and meal	670 95
Milk	182 00
Tea and coffee	308 33
Potatoes and other vegetables	138 22
Groceries and provisions not enumerated	609 90
Drugs and medicines	228 03
Medical and surgical appliances	32 75
Surgical instruments	6 07
Beer, wine and spirits	42 73
Bedding, napery and general house furnishings	509 29
Brooms, brushes, mops, soap and cleaning appliances	177 24
Fuel	369 25
Light—gas, oil and candles	44 28
Water supply	67 20
Hay and straw	157 09
Clothing for patients, including boots and shoes	35 00
Ice	15 00
Salaries and wages	58 00
Taxes and insurance	114 50
Coffins and funerals	27 00
Contingencies	50 00
Repairs, ordinary	226 64
Postage, telegraphing, etc.	49 70
Total	$5,286 47

Government grant for 1890.

Allowance for hospital cases, 10,321 days, at 20 cents per day	$2,064 20
Supplementary allowance equal to one-fourth of hospital revenue	735 41
Allowance for improper cases for hospital treatment, 1,544 days, at 7 cents	108 08
Total	$2.907 69

INSPECTIONS.

Copies of the reports made by Mr. Christie to the Government upon this hospital are annexed:—

I made an inspection of the Hotel Dieu Hospital, Kingston, on the 10th of May, and saw all the patients then being cared for, 8 adult males and 17 females. 203 admissions had been granted during the official year up to the day of my visit, and about the usual number for the time elapsed of the current year.

I found all the apartments in excellent order, very clean and neat, and the patients were undoubtedly receiving every necessary care and attention.

Mr. Christie made a second inspection of the Hotel Dieu Hospital, Kingston, on the 27th September. 30 patients were under treatment, 15 males and 15 females. The usual good attention was being shown in their care and treatment.

The accommodation in this institution is now fully occupied with the present number of patients under charge, and in consequence of this condition of matters, I understand the authorities are discussing the question of removing the institution to a more favorable site, and the erection of larger buildings. This movement will appear to be necessary, in view of the requirements for increased room, and in the general interests of the institution it will be well to make provision in this regard, before the necessities become too pressing,

I found the books and records neatly and properly kept, and the hospital in its usual condition of neatness and cleanliness.

COUNTY OF CARLETON GENERAL PROTESTANT HOSPITAL, OTTAWA.

The following summaries show the operations of this Hospital during the official year:—

Movements of patients.

Number under treatment, 1st October, 1888	36	
Admitted	329	
Births in the Hospital	...	
Total number under treatment		365

Discharged	275	
Died	47	
Under treatment, 30th September, 1889	43	
		365

Places admitted from.

From the City of Ottawa	220	
From the County of Carleton	10	
From other Counties in the Province	69	
Other countries	66	
		365

Sex.

Male	226	
Female	139	
		365

Nationalities.

Canadian	205	
English	81	
Irish	32	
Scotch	17	
United States	6	
Other countries	24	
		365

Religious denominations.

Protestant	320	
Roman Catholic	19	
Other religions, or not known	26	
		365

Revenue.

From the Province of Ontario	$4,504 90
From the City of Ottawa	800 00
From the County of Carleton	500 00
From other Municipalities	160 00
From patients themselves for maintenance and treatment	1,195 35
Income from endowments	241 70
Subscriptions, donations, and bequests of private individuals	3,927 38
From other sources not enumerated	312 75
Total	$11,642 08

Expenditure.

Butcher's meat	$ 695 82
Butter	321 15
Flour, bread, meal	407 59
Milk	559 60
Tea and coffee	170 35
Potatoes and other vegetables	99 08
Groceries and provisions not enumerated	377 07
Drugs and medicines	627 81
Beer, wine and spirits	215 59
Bedding, napery, and general house furnishings	165 70
Brooms, brushes, mops, soap, and cleaning appliances	7 40
Fuel	764 25
Light—gas, oil, and candles	65 97
Water supply	172 68
Hay and straw	20 00
Clothing for patients	.....
Ice	10 00
Salaries and wages	3,235 00
Taxes and insurance	153 50
Coffins and funerals	100 00
Contingencies	547 67
Repairs, ordinary	269 50
Printing, postage and stationery	.....
Total	$8,985 95

Government grant for 1890.

Allowance for Hospital cases, 10,787 days at 20 cents	$2,157 40
Supplementary allowance, 10,787 days at 10 cents	1,078 70
Allowance for improper cases for Hospital treatment, 4,355 days at 7 cents	304 85
Total	$3,540 95

INSPECTIONS.

Copies of Mr. Christie's reports to the Government upon this hospital are annexed :—

I visited the Protestant Hospital, Ottawa, on the 9th April, and saw all the patients then under treatment: 24 males and 12 females, all of whom appeared to be receiving kind and considerate treatment.

Since the casuality by the storm of last summer, the repairs and refitting made necessary on account thereof, have been completed, and the hospital now presents a very neat and tidy appearance throughout.

The number of patients admitted during the current year has not varied to any great extent, from a like period in former years.

Mr. Christie made a second inspection of the Protestant Hospital on the 4th October. 28 males and 15 females were under treatment, making a total of 43 in residence.

The number of patients admitted during the past year has not been quite as great as during the previous year. The season in the city and surrounding country is reported to have been an exceedingly healthy one, and consequently the number of patients applying for admission have not been so numerous.

I found the hospital in excellent order throughout; the patients appeared to receive due attention and care, and the books and records were properly kept.

GENERAL ROMAN CATHOLIC HOSPITAL, OTTAWA.

The following summaries shew the operations of this Hospital during the official year:—

Movements of patients.

Number under treatment, 1st October, 1888	40	
Admitted	642	
Total number under treatment		682
Discharged	592	
Died	46	
Under treatment, 30th September, 1889	44	
		682

Places received from.

From the City of Ottawa	532	
From the County of Carleton	79	
From other Counties in the Province	41	
From the United States	4	
From other countries	26	
		682

Sex.

Male	332	
Female	350	
		682

Nationalities.

Canadian	419	
English	31	
Irish	194	
Scotch	14	
United States	10	
Other countries	14	
		682

Religious denominations.

Protestants	21	
Roman Catholics	652	
Other religions	9	
		682

Revenue.

From the Province of Ontario	$5,566 23
From the City of Ottawa	800 00
From the County of Carleton	225 00
From paying patients	3,364 39
From income from investments	120 00
From subscriptions, bequests and donations of private individuals	1,504 61
From other sources, not enumerated	1,838 80
Total	$13,419 03

Expenditures.

Butcher's meat	$1,474 84
Butter	710 62
Flour, bread and meal	585 65
Milk	598 49
Tea and coffee	197 00
Potatoes and other vegetables	475 65
Groceries and provisions, not enumerated	791 93
Drugs and medicines	615 74
Medical and surgical appliances	15 00
Surgical instruments	.....
Beer, wine and spirits	294 48
Bedding, napery and general house furnishings	509 33
Brooms, brushes, mops, soap and cleaning appliances	120 50
Fuel	762 88
Light—gas, oil and candles	280 82
Water supply	156 00
Hay and straw	37 00
Clothing for patients, including boots and shoes	126 26
Ice	50 00
Salaries and wages	920 00
Taxes and insurance	433 18
Coffins and funerals	.....
Contingencies	595 21
Repairs, ordinary	404 98
Total	$10,155 56

Government grant for 1890.

Allowance for Hospital cases, 17,025 days at 20 cents -	$3,405 00
Supplementary allowance, 17,025 days at 10 cents -	1,702 50
Allowance for improper Hospital cases, 856 days at 7 cents	59 92
Total - - - - - - - - - -	$5,167 42

Copies of the reports made to the Government by Mr. Christie upon this hospital are annexed :—

I made an inspection of the General Roman Catholic Hospital on the 10th day of April.

I found the number of patients then under treatment to be 50, 35 of whom were under treatment in the public wards, and the remainder were in the private wards of the Institution ; 20 were adult males, 29 adult females, and one was a youth under 12 years. The records shew that 374 patients had been under treatment since the 1st of October last, and for a like period in the former year, 414 had been in charge.

I found the wards all in the usual excellent degree of neatness, and the patients evidently receiving every necessary care and attention.

Extensive and desirable structural improvements are projected during the coming year. The wing in the rear now largely used for domestic purposes is to be enlarged and refitted, and in the enlargement, bathrooms and closets will be connected with each of the wards. Airing galleries will also be added for the use of the convalescent patients. These improvements will conduce to the sanitary condition of the Hospital, and will be more efficient in every respect ; the apartments in which closets and baths now are will then be refitted and used as operating rooms ; they will be most suitable for the purpose, both on account of the exposure and ample light.

I found the books neatly and properly kept, the records afforded all the information necessary as to the routine work and operations of the Institution, and the terms by reference to by-laws and general rules submitted for the admission of patients; and as to the rules governing the attendance of the medical staff, particular attention is paid to this matter, all of which conduces to the maintenance of good and proper treatment of the patients.

Mr. Christie made a second inspection of the Roman Catholic Hospital, Ottawa, on the 4th October, and found that there were 45 patients being cared for. No change worthy of note has been made in the routine work of this Institution since the date of my last visit.

All the apartments and several wards were in excellent order.

All the apartments, rooms and halls on the first, or ground floor, have recently been neatly painted, and present a neat and comfortable appearance.

I found the books properly kept."

HOUSE OF MERCY LYING-IN HOSPITAL, OTTAWA.

The following summaries shew the operations of this hospital during the official year:

Movements of patients.

Number under treatment, 1st October, 1888	35	
Admitted	161	
Births in the hospital	157	
Total number under treatment		353
Discharged	309	
Died	17	
Under treatment 30th September, 1889	27	
		353

Places received from.

From the City of Ottawa	136	
From the County of Carleton	18	
From other counties in the Province	181	
From the United States	4	
From other countries	14	
		353

Sex.

Males	81	
Females	272	
		353

Nationalities.

Canadian	134	
English	76	
Irish	91	
Scotch	44	
Other countries	8	
		353

Religious denominations.

Protestants	130	
Roman Catholics	223	
		353

Revenue.

From the Province of Ontario	$1,914 82
From paying patients themselves	1,073 22
Income from investments	181 50
From subscriptions and donations	2,176 50
From other sources	3,009 84
Total	$8,355 88

Expenditure.

Butchers' meat	$887 16
Butter	378 75
Flour, bread and meal	411 70
Milk	471 11
Tea and coffee	163 75
Potatoes and other vegetables	188 64
Groceries and provisions, not enumerated	411 43
Drugs and medicines	117 82
Surgical instruments	.....
Beer, wine and spirits	77 02
Bedding, napery, and general housefurnishings	285 26
Brooms, brushes, mops, soap, and cleaning appliances	92 83
Fuel	338 05
Light—gas, oil and candles	43 58
Water	96 01
Hay and straw	193 35
Clothing for patients, including boots and shoes	100 27
Ice	20 00
Salaries and wages	416 17
Taxes and insurance	44 70
Coffins and funerals	7 60
Contingencies	.....
Repairs, ordinary	90 08
Total expenditure for maintenance	$4,835 28
For addition to buildings	3,720 67
Total	$8,555 95

Government grant for 1890.

Allowance for Hospital cases, 5,402 days, at 20 cents	$1,080 40
Supplementary allowance, 5,402 days, at 10 cents	540 20
Allowance for improper cases for Hospital treatment, ment, 4,407 days at 7 cents	308 49
Total	$1,929 09

INSPECTIONS.

Copies of Mr. Christie's reports to the Government upon this hospital are annexed:—

I made an inspection of the House of Mercy Lying-in Hospital on the 9th of April.

There were in residence on that day 24 patients, 20 of whom were awaiting their confinement, and 4 were convalescent after their maternity; 113 women I found had been registered since the commencement of the year, 31 of whom were in residence at the beginning of the official year. Since that date no deaths were recorded, and all those in residence on the day of my visit were in favorable health.

The surroundings were comfortable, and the apartments of the Institution are in perfect order and neatness. Many of the apartments were newly painted and kalsomined, and the building throughout was in a scrupulously clean condition.

Mr. Christie visited the Lying-in Hospital on the 4th October.

There were then 22 adult females and 5 infants in residence, 5 of the women had passed their maternity, the others were awaiting their confinement.

The books show that 157 births and 18 deaths of infants are recorded during the past year. I found all the apartments in excellent order, and every indication of proper care and management prevailing.

GENERAL HOSPITAL, LONDON.

The following summaries shew the operations of this Hospital during the official year:—

Movements of patients.

Number under treatment, 1st October, 1888	43	
Admitted	403	
Births in the Hospital	23	
Total number under treatment	——	469
Discharged	386	
Died	32	
Under treatment, 30th September, 1889	51	
	——	469

Places received from.

From the City of London	307	
From the County of Middlesex	95	
From other counties in the Province	67	
	——	469

Sex.

Male	249	
Female	220	
	——	469

Nationalities.

Canadian	242	
English	102	
Irish	68	
Scotch	34	
United States	11	
Other countries	12	
	——	469

Religious denominations.

Protestant	397	
Roman Catholic	68	
Other religions	4	
		469

Revenue.

From the Province of Ontario	$4,918 57
From the City of London	7,564 11
From the County of Middlesex in payment for patients	1,870 92
From paying patients themselves	2,689 69
From income from property or investments	454 60
Total	$17,497 89

Expenditure.

Butchers' meat	$1,590 35
Butter	709 28
Flour, bread and meal	464 48
Milk	690 21
Tea and coffee	226 00
Potatoes and other vegetables	104 96
Groceries and provisions not enumerated	1,480 13
Drugs and medicine	1,137 10
Surgical instruments	.....
Medical and surgical appliances	350 53
Beer, wine and spirits	284 00
Bedding, napery and general house furnishings	1,192 24
Brooms, brushes, mops, soap and cleaning appliances	194 20
Fuel	1,358 54
Light—gas, oil and candles	515 15
Water	100 00
Hay and straw	14 54
Clothing for patients	.....
Ice	44 00
Salaries and wages	4,609 60
Taxes and insurance	109 75
Coffins and funerals	6 50
Contingencies	546 98
Repairs	842 09
Total	$16,570 63

Government grant for 1890.

Allowance for hospital cases 15,679 days at 20 cents	$3,135 80
Supplementary allowance, 15,679 days at 10 cents	1,567 90
Allowance, improper cases for hospital treatment, 1,782 days at 7 cents	124 74
Total	$4,828 44

INSPECTIONS.

Copies of the reports made by me to the Government are annexed :—

I made an inspection of the General Hospital, London, on the 14th June. On that date there 24 males, 33 females, and 2 children under treatment.

An effort is being made by the Board of Trustees to improve this Hospital, but it is difficult to accomplish much in a building so ill-suited to its purpose. What has been done does not display as much enlightenment on the part of the Board as one would have expected.

A new drying-room has been constructed, but it is of an exceedingly clumsy and inferior kind. And the desire to benefit local tradesmen is so strong that inferior iron bedsteads have been made for the institution locally, at a higher price than a first class article can be purchased for from the manufacturers in an adjoining province.

It would seem that in this respect the effort made by the Legislature in passing an act providing for the government of this institution by a Boardof Trustees, and thus remove it from the contral of ward politicians, has not been a shining success.

The interior of the Hospital was found to be as well conducted and as well kept as it is perhaps fair to expect from an institution labouring under so many difficulties

I made a second inspection of the General Hospital, London, on the 21st September. On that date there were 47 patients in residence—23 males and 11 females—all of whom appeared to be fit subjects for Hospital residence.

I found the institution in its usual condition.

GENERAL AND MARINE HOSPITAL, ST. CATHARINES.

The following summaries shew the operations of this Hospital, during the official year :—

Movements of patients.

Number under treatment, 1st October, 1888	18	
Admitted	167	
Births in Hospital	5	
Total number under treatment		190
Discharged	157	
Died	12	
Under treatment, 30th September, 1889	21	
		190

Places admitted from.

From the City of St. Catharines	84	
From the County of Lincoln	55	
From other counties in the Province, and sailors	44	
From the United States	6	
From other countries	1	
		190

Sex.

Male	127	
Female	63	
		190

Nationalities.

Canadian	75	
English	49	
Irish	32	
Scotch	10	
United States	17	
Other countries	7	
	——	190

Religious denominations.

Protestant	146	
Roman Catholic	44	
	——	190

Revenue.

From the Province of Ontario	$1,949 47
From the Dominion Government	500 00
From the City of St. Catharines	600 00
From the County of Lincoln	1,000 00
From endowments, investments, etc.	55 70
From patients themselves, for maintenance and treatment	735 65
From subscriptions, bequests and donations of private persons	546 92
Total	$5,387 74

Expenditure.

Butcher's meat	$354 90
Butter	121 35
Flour, bread and meal	331 46
Milk	390 32
Tea and coffee	52 12
Potatoes and other vegetables	93 60
Groceries and provisions, not enumerated	257 03
Drugs and medicines	466 46
Medical and surgical appliances	76 23
Surgical instruments	2 60
Beer, wine and spirits	102 25
Bedding, napery and general house furnishings	377 78
Brooms, brushes, mops, soap and cleaning appliances	58 87
Fuel	334 92
Light—gas, oil and candles	94 05
Water supply	17 00
Hay and straw	5 00
Ice	18 00
Salaries and wages	1,841 00
Taxes and insurance	6 93
Contingencies	29 68
Stationery and advertising	64 04
Repairs, ordinary	142 74
Total	$5,238 33

Government grant for 1890.

Allowance for Hospital cases, 6,831 days at 20 cents	$1,366 20
Supplementary allowance, 6,831 days at 10 cents -	683 10
Allowance for improper cases for Hospital treatment, 974 days at 7 cents - - - - - -	68 18
Total - - - - - - - - - -	$2,117 48

INSPECTIONS.

A copy of the report made by me to the Government is annexed :—

I made an inspection of the General and Marine Hospital, St. Catharines, on the 22nd February.

Having to go to St. Catharines to investigate certain charges preferred against the management of this hospital, which matter is referred to elsewhere. I made this inspection on that occasion.

There were 18 male and 10 female patients in residence on that date, every one of whom I spoke to personally, and questioned, especially as to the treatment each was receiving in the institution.

Every patient, without exception, spoke in the most favorable way of the management of the hospital; and I found everything to be in excellent order.

Dr. O'Reilly, instructed Mr. Nicholson, to make an inspection of this hospital he reported as follows :—

I have the honor to state that, in accordance with your instructions, I inspected the General and Marine Hospital, St. Catharines, on the 29th August, when it contained 21 patients—15 males and 6 females. Only four of the patients, however, were in the wards; the others being convalescent, were out about the grounds.

The hospital was in excellent order throughout.

The names of ten nurses were on the roll of the nurses training school, the majority of whom were out nursing.

In your report upon the investigation held by you in February last, into certain charges made against the management of this hospital, you made some recommendations which I find have been only partially adopted.

You advised the forming of a medical staff, to consist of not less than six physicians; each to attend at the hospital at a fixed hour every day for his allotted week; all patients received during that week to be his own, he to attend them until their discharge or death, and not to be transferred to his successor at the end of his week, possibly at an important crisis of the case.

The medical staff has been established, but in place of each physician attending for a week at a time, he continues for a month; and all the patients in charge are then handed over to his successor, except in special cases where the request is made to retain them.

I find, also, that the medical staff do not appear to take any interest in the nurses' training school. They give no clinical lectures; they diagnose cases for themselves, and do not even place cards over the beds of the patients, to show what the disease is. The nurses are therefore left to find this out for themselves.

THE FOLLOWING IS A REPORT MADE BY ME UPON AN INVESTIGATION HELD AT ST. CATHARINES ON THE 20th AND 23rd FEB., 1889, INCLUSIVE, AT THE COURT HOUSE, ST. CATHARINES.

March 1st, 1889.

To the Hon. A. M. ROSS,

Treasurer Province of Ontario.

SIR,—I have the honour to report for the information of His Honour the Lieutenant-Governor in Council, that on the 10th December last I received a letter from Miss Alda Spence, of Jordan, stating that she had been a patient in the St. Catharines General and Marine Hospital for three days and three nights, and had then left in consequence of the ill treatment she had received during that time, and which she freely characterized as brutal, cruel and only fit for dumb brutes. Miss Spence gave very full details in the letter of her ailment, and of the treatment she had undergone both previous and subsequent to her hospital experience, and was very clear and circumstantial in all her statements. She demanded an official investigation at my hands. On the 11th December I forwarded Miss Spence's letter to a member of the Board of Trustees of the hospital, with a request that I might be favoured with a report upon it by the Board, to enable me to decide whether an investigation was necessary or not. On the 21st I received a reply from the gentleman to whom I wrote assuring me that the Board would promptly investigate the matter and report.

The Board did not, however, seem to attach much importance to either Miss Spence's charges or my request, for it was not until the 9th January that the Board had a preliminary meeting, at which they decided to hold a meeting for investigation on the 17th of that month. Meantime I had received from Dr. Greenwood, the medical Superintendent of the hospital, a letter dated 31st December, in which the doctor gave it as his opinion that Miss Spence's letter was an "effusion of a mind temporarily deranged in some way; she was suffering "from the effects of strong mental emotion and sorrow for the loss of a sister, "and from the time she came to my office for admission until she left the "hospital she was in a dazed and at other times in a hysterical condition."

On the 23rd January I received the report of the trustees (with a copy of the evidence taken) in which they declared that Miss Spence's charges were entirely unfounded, adding that the evidence clearly showed that Miss Spence was a very troublesome patient while in the hospital, and seemed to be dissatisfied from the time of her arrival until she left.

I was disposed upon the evidence before me to let the matter drop here, but unfortunately a local newspaper had in the meantime espoused Miss Spence's cause, and was almost daily making and reiterating the wildest statements in respect of the hospital, and creating very considerable distrust in the community as to the manner in which Miss Spence had been treated at the investigation held by the trustees, and of the management of the hospital generally. The "hospital scandal" became the ruling excitement of the day. Stories were told by correspondents calculated to create the greatest possible alarm in the community in respect of the management of the hospital. Sensational headlines were freely used "Lack of Food," "Inhuman Treatment," "Who got the Sugar," "Makes the blood run cold," etc., etc. The vile charge was publicly made that friends of patients brought to the hospital with the authorization of the Superintendent, delicacies for patients who never received them; leaving it to be inferred that they were confiscated and eaten by the nurses. At length the Board of Trustees passed a

resolution asking me to make an official investigation into certain charges made by the *Star* newspaper and others, and when I arrived at St. Catharines I found that the matter had assumed the shape of a controversy between the trustees and the editor of the *Star*. I was disposed to ignore the *Star* in the investigation, but I was waited upon by the editor of that paper who insisted that, as the trustees had specified the *Star* as one of the parties making charges, and had impugned the veracity of that paper, he would insist upon being heard. To avoid any appearance of unfairness I was obliged to consent to the appearance of the editor as counsel for the paper. The Hon. J. G. Currie, Q.C., appeared as counsel for the trustees. The investigation was commenced on the evening of the 20th February, lasting the whole of the day and evening of the 22nd and until noon of the 23rd. The sittings of the 20th and 21st were held in the Court House, which was crowded with spectators during the whole time. The morning of the 23rd was spent at the hospital in examining the patients separately. All the evidence was taken under oath and reported by a stenographer. An extended copy of the same is enclosed herewith.

At the commencement of the investigation, Mr. J. McClelland, editor of the St. Catharines *Evening Star*, the journal in which the allegations against the hospital management first appeared, declined the responsibility of formulating the charges, arguing that the trustees of the hospital, having asked that the investigation be held, should undertake the duty of conducting the inquiry. The trustees, not unnaturally, were reluctant to assume the position of prosecutors of charges which, if maintained, could not fail to reflect on themselves. Hence in the earlier stages of the investigation, the charges were not defined with the degree of distinctness that was desirable. A review of the evidence taken, however, discloses that they may be classified under four heads, as follows: 1. Impropriety in the conduct of the investigation held by the trustees on January 17th. 2. Charges of cruelty and neglect on the part of matron and nurses. 3. Charges of cruelty, maltreatment and neglect on the part of the Medical Superintendent. 4. Complaints as to the insufficiency and inferior quality of food and supplies. To these may be added, arising incidentally during the development of the evidence, unsatisfactory arrangements in the internal economy and management of the hospital.

The charges under the first head are, that at an investigation held by the trustees on January 17th, Miss Alda Spence, an ex-patient who made certain allegations against the Medical Superintendent, matron and nurses of the hospital, was not accorded a fair hearing; that she "was hemmed in on all four sides by those who were conducting the investigation, badgered and interrupted in the recital of her complaint by jest, laughter and insinuation;" and that the investigation was conducted in a generally unbecoming manner. This charge Mr. McClelland endeavoured to prove by the evidence of the trustees themselves, calling Messrs. Dawson, Norris and Lawrie as witnesses for that purpose. A most searching examination of these gentlemen, however, failed to elicit from them any admission that the proceedings were conducted in other than a fair and judicial spirit, or that any of the members present indulged in jest, laughter or insinuation, or in any way prevented Miss Spence from making a full statement of her greivances. It was admitted, however, that certain peculiar forms of speech made use of by Miss Spence provoked what one witness described as a "ripple of laughter" among those present, and that the rambling way in which she told her story necessitated occasional interruptions. Miss Spence, the only other witness who gave evidence in relation to this charge, maintained on the other hand that it was a correct statement of fact; that she had been badgered with questions,

met by insinuations and laughter, and generally treated with much lack of courtesy. Mr. McClelland who was himself present at this examination did not offer himself as a witness.

In view of the very emphatic sworn denial of this charge by Mrs. Miller, Mrs. McClive, Capt. Norris, Sheriff Dawson and Mr. Lawrie, and the absence of any corroboration of Miss Spence's statement, and bearing in mind the-at-times almost grotesque expressions made use of by her during the course of the present inquiry, I am led to the conclusion that a morbid sensitiveness caused her to apprehend as jests and insinuations remarks not made in an unkindly spirit, and questions intended only to facilitate the progress of the inquiry; and to magnify into wanton laughter manifestations of mirth which, though perhaps ill-timed, were not under the circumstances entirely unprovoked.

I do not think there is any foundation in fact for this charge, and am of opinion that the trustees were actuated only by an honest desire to afford Miss Spence a fair opportunity of stating her grievances, and that there was nothing that could justly be termed unfair or unbecoming in the manner of conducting the inquiry in respect of which the charge is made.

The charges under the second head, of cruelty and neglect on the part of matron and nurses, cover considerable ground; and some of them have reference to a period hardly within the purview of the present inquiry; the persons who would have been responsible for the acts or omissions complained of, if proven, having since severed their connection with the hospital. The charges made by Miss Spence, who in this, and indeed almost every branch of the arraignment, is the principal witness, are those most directly under consideration here; the others seeming to have been introduced more for the purpose of sustaining and corroborating her statements as to the state of affairs prevailing at the hospital. Her story is, briefly, that she had no sooner entered the hospital, on Friday evening, November 2nd, 1888, than the ill-treatment began; that instead of being met with the sympathy she had expected, she was spoken to sharply by the matron and one of the nurses because, being tired, she sat down on a lounge in the hallway. The matron's remark was, "Well, what's the matter with you;" and the nurse said, "Patients don't stop here; come right to your ward." Then in a short time requiring the assistance of the nurse on duty, Miss Mills; and being unable to attract her attention by rapping, she went out into the corridor in search of her, and, on meeting her at the end of the hallway, was told in a peremptory manner, and with a forbidding gesture, "Go back with you; that is no way to come out here." The witness's ailment was of a character attended at intervals by acute pain, which it was within the power of the nurse to relieve by the use of an instrument, and shortly after eight o'clock on the evening of her admission these pains set in, and she alleges that in spite of repeated requests and solicitations. nurse Mills failed to relieve her for a whole hour, when the pain became so intense that she groaned and cried aloud, and in her agony rolled off the bed. The nurse then performed the necessary operation, which resulted in a cesssation of the pain, after which she did not make any more noise. Next morning, she was, to use her own expression, "scolded by the matron for suffering," and told that she must do better next night; that she had disturbed the whole hospital. On the second night of her stay the pain again began before seven o'clock, and she asked nurse Mills to relieve her about eight o'clock, no attention being paid to her request however. When the night nurse, whose name

she thought was Service, came on, the request was repeated, the reply made to it being, "I will not be bothered with you." At nine o'clock the night nurse was called and again asked to render the necessary service, but returned the same answer, that she would not be bothered. On rapping for the night nurse again, after a short interval, the witness was sharply rebuked for breaking the rules of the institution by rapping more than once in an hour, and threatened that if not perfectly quite she would be reported. On this she again explained what she wanted, but it was not until after ten o'clock that she was relieved, and then not by the night nurse, but by nurse Mills, who came in to perform the necessary service. On the next or third night nurse Mills relieved her sufferings immediately on being requested, but when subsequently asked for a hot water bottle for the purpose of allaying another pain, caused by inflammation, she persisted, in spite of the witness's remonstrances, in repeating the operation for the other disorder, causing needless pain and doing nothing to relieve the pain from which she then suffered. Finally, about ten o'clock, the hot water bottle was obtained. The witness also complains of having been on one occasion subject to a hypodermic injection which was followed by painful results, and on another that an injection of warm water, ordered by the Medical Superintendent was administered too hot.

As against these statements of Miss Spence, there is the evidence of Miss Benson, matron of the hospital, nurse Mills, and a patient named Maggie Steinaman, who occupied the next bed to Miss Spence in the Mack Ward. The matron denies all the statements in so far as she is personally concerned, and states that immediately on Miss Spence's condition becoming known on the night of her arrival the nurse was sent and relieved her, but that she continued very noisy all night, much to the discomfort of her fellow-patients. Of this latter fact, however, the matron had no personal knowledge, but had heard it from the nurse. The scolding complained of, she said, was only a gentle admonition to make an effort for the sake of her fellow-sufferers to restrain her feelings. Though there had been abundant opportunity, and she had always been ready to listen, no complaint of any kind had been made by Miss Spence to the matron, though she did on one occasion unburden herself in regard to some family matters which had been troubling her mind.

Miss Mills, the nurse who with the night nurse named Service was chiefly complained of, and who has left the hospital, denied in general terms all the allegations of Miss Spence. On being pressed, however, as to the length of time Miss Spence had been left without the attention she required she manifested an unwillingness to commit herself to any definite answer, resorting to the answer, "I have no recollection that such and such was the case." She was positive, however, that she had always done what was necessary, and stated that on some occasions Miss Spence's pain was not relieved by the operation referred to, a fact she had reported to the Medical Superintendent. On the occasion referred to by Miss Spence she gave her the hot water bottle asked for in addition to repeating the operation; she did not remember that Miss Spence had remonstrated against the repetition of the operation, or that it had been productive of pain. Miss Spence had never made any complaints to witness, who had asked her one day what was the trouble, but was told she would not understand it. When Miss Spence was leaving the hospital she was persuaded by witness to stay, as she thought it a pity for her to be leaving just as she was beginning to be treated. Miss Spence always seemed to have some trouble on her mind which she would not tell, and was unsettled and did not seem to know what she wanted. This, the witness thought, was sometimes the symptoms of insanity, and she did not think Miss Spence entirely sane; she had often seen patients of that kind. Miss Spence

was a more than ordinarily troublesome patient, and demanded a great deal of attention, and had violated the rules of the hospital on one occasion by removing dressings placed in position by the doctor.

Maggie Steinaman, a patient whose testimony was taken at the hospital, and who occupied the next bed to Miss Spence when an occupant of the Mack Ward, said that Miss Spence on the night of her admission to the hospital made a great fuss, and kept her fellow patients awake all night. The night nurse on duty was a new hand, and had to go over to the home and get another nurse, who came to the relief of Miss Spence as soon as possible. The matron did not scold Miss Spence next morning as alleged, but asked her in a friendly manner how she felt the night before, and suggested that she should exercise a little more control over her feelings, as a typhoid patient in the adjoining ward had been disturbed by the noise she made. The witness had received every proper attention, and was of opinion that while in the hospital Miss Spence had not been neglected or ill-treated in any way. She had grumbled a good deal to witness, but there was no cause for grumbling.

Reviewing the foregoing testimony there does not seem to be any ground for supposing, even accepting as true her own statements, that any positive acts of cruelty were committed upon Miss Spence, nor indeed, are the allegations of unkindness and negligence sufficiently well established to demand at my hands any censure of those against whom they are directed. It was sufficiently apparent to any careful observer of Miss Spence while in the witness box that, although in some respects singularly cool and self-possessed, she is of a highly nervous and somewhat hysterical temperament—a condition induced, no doubt by the nature of her disorder—prone to taking offence easily; and having been offended, given to reticence and repellant of sympathy. This mental peculiarity seems to me to furnish the keynote of her conduct throughout, and to afford in several cases an explanation of what to her mind appeared to be affronts and acts of cruelty. A perusal of her evidence will afford numerous instances of this. She would not ask for things she wanted because she did not think the nurses showed sufficient readiness in attending to her; she refrained from laying her complaints before the matron because she was not asked to do so, and when crying because rebuked by the nurse, and approached with the not unnatural inquiry, 'What is the matter, why are you crying?" she repelled the evidently intended sympathy because she deemed herself affronted. For this reason, and because of the evident recklessness of her statements in regard to other branches of the inquiry, I am constrained to weigh her statements with the utmost care, and to accept none of them unless amply corroborated. Had such corroborative evidence been brought forward I should not have been inclined to attach so much weight to the denials of the matron and nurse Mills. I do not intend by this, however, to cast the slightest reflection upon the truthfulness of the matron's evidence as far as it goes, but the majority of the acts, or failures to act, which formed the subject of Miss Spence's complaints do not seem to have come under her direct notice, and might very well have occurred without her knowledge. Of the fact that the matron's supervision should have been sufficiently comprehensive to render her cognizant of the acts or negligence complained of, if existent, I shall have some remarks to make in another section of this report. The evidence of Miss Mills was not to my mind entirely satisfactory. When pressed in regard to the truth of certain statements made by Miss Spence as to the length of time she had been left without proper attention, there was evident on the part of this witness a desire to evade the direct question and take refuge behind such answers as "I do not recollect that such was the case." This circumstance, coupled with the manner of the

witness generally, created in me an impression that it was quite possible this nurse had not at all times acted as promptly as the occasion demanded, or displayed that solicitude for the comfort of one of her charges which might reasonably be expected from a trained and experienced nurse. The evidence, however, which goes further in my mind towards deciding against any presumption of the correctness of Miss Spence's statements, is that of Miss Steinaman. This young woman, it was alleged by Miss Spence, had witnessed many of the acts and heard the remarks complained of, and would amply corroborate her in this as in every other branch of her charges; and the fact that at the investigation held by the trustees she had failed in doing so was attributed to a fear of the consequences attached to making any statement reflecting upon the doctor, matron or nurses of the hospital. Miss Steinaman, in common with all the patients whose statements I took at the hospital, was examined within the hearing of no person but the stenographer who reported the investigation officially and myself, and was distinctly made to understand that any statements she might make in regard to the affairs of the hospital if unfavorable would not become known to any one in any way connected with its management. I may also say, having closely observed this witness while making her statement, that I do not believe any fear of consequences would have deterred her from speaking the truth at any time. Therefore her comprehensive and explicit contradiction of all Miss Spence's statements, added to the testimony of the matron and nurse, and the inferences to be drawn from Miss Spence's manner of giving her evidence, convince me that although there may have been in some instances—as is unfortunately likely to occur in any similar institution—less consideration for the whims and exactions of a somewhat troublesome patient than was desirable, there was nothing at all calculated to justify charges so sweeping as those preferred by Miss Spence. I have no doubt she was the recipient of the same degree of care and attention bestowed on all the other patients, all of whom are perfectly satisfied and speak in the highest terms of praise of both the matron and nurses.

Of the charges under this head other than those preferred by Miss Spence, some are sufficiently serious, and, if susceptible of proof, would argue the existence in the hospital of a most reprehensible state of affairs. The matters referred to by the witness Mrs. Fullerton, call for but little remark, the more so that they relate to a comparatively remote period. If this lady is to receive credence she had for many years been aware that patients in the hospital were kept in a state of semi-starvation, and treated in some instances with the utmost inhumanity, although it does not appear that she had ever visited the institution, but notwithstanding this knowledge, and the fact that a lady member of the Board whose humane disposition was well known to the witness, lived within a very short distance of her, and that the members of the board were passing and repassing her house almost daily on their visits to the hospital, she conceived it her duty to keep this information locked up within her own bosom, contenting herself, by her own account, with offering to the Almighty a fervent appeal that He would at some future time reveal that which, if true, it was her manifest duty to have made public then and there. The case of a certain colored man referred to by this witness, though sufficiently lamentable, was something for which it would be most unjust to hold anyone connected with the hospital responsible, subsequent evidence showing very clearly that it was attributed to the unpardonable stupidity and inhumanity of the police authorities, whose officers brought and left lying on the verandah of the hospital an insane man who was certainly quite unfit to become the inmate of an institution in which all the attendants with the exception of the medical officer are females, the object being to get the city rid of this man on any terms.

The testimony of Herbert H. Ball regarding the statements of a man named Griffith, who was an inmate of the hospital in 1887, being mere hearsay, is not admissible under the ordinary rules of evidence. If any patient were treated in the manner described in the evidence of this witness it would certainly indicate a shocking degree of callousness on the part of those implicated, but the evidence being second-hand, no names given, and referring to occurrences alleged to have taken place nearly two years ago, I am unable to take cognizance of it.

Somewhat akin to the evidence of Mrs. Fullarton was that given by Chauncy B. Reece, an ex-reporter of the *Star*. This gentleman it seems accompanied the members of the county council on a visit made by them to the hospital quite recently, and while there he observed a consumptive patient named Stodler lying with his head in a very uncomfortable position, and no one at hand to adjust his pillow for him. On questioning this patient as to his condition he was told that on the previous night in making an effort to reach some bed clothing which had fallen off him he fell out on the floor, and remained there some time before assistance came to him. It is a fair subject of remark that although Mr. Reece says that this man's position in the bed was very uncomfortable, and suggested to him the idea that he was neglected, it never occurred to him to put forth his hand and straighten out the pillow himself, and that although he called the attention of one or two members of the council to him he did not mention the matter to a nurse, but left him lying at the end of half an hour in exactly the same position. The statement this patient fell out of bed and was allowed to lie for some time on the floor was contradicted point blank by two patients who were in the ward at the same time, W. L. Brown and J. Hannah, the latter of whom says that in any event Stodler was quite capable not only of getting in and out of bed unaided, but of walking the length of the room to the closet, something which he did frequently.

An affidavit containing some very sweeping statements made by Mrs. Boles, who in 1885 was a patient in the hospital, was read by Mr. McClelland, who stated that two of her daughters, who had also been occupants of the hospital about the same time, would appear at the investigation and give evidence. For reasons best known to themselves they failed in doing so, and I do not feel justified in accepting an affidavit in regard to matters which might have been testified of orally.

Another witness called was Hugh Sulkey, whose son had had his arm amputated in the hospital and died some months afterwards. The ground of complaint in this case was that at the time the operation was performed his mother was refused permission to remain overnight with him in the hospital, and on calling to see him was told by some of the patients that during the night in his delirium he got out of his bed and was roaming about the ward. The witness did not know that this had been followed by any ill effects, nor had it anything to do with his son's subsequent death, which resulted from the settling on his lung of the cancer in consequence of which the arm had to be amputated. He had not removed his son from the hospital because he believed he was ill treated there, but because his case was hopeless. He did not know why he had been called as a witness, for he really knew nothing about the matter beyond what his wife had told him, and it was only from the statements of other patients in the ward that she had learned of the incident referred to.

As against these ill-defined, second-hand and unsupported statements of some half-dozen witnesses, there is the unanimous testimony of twenty-four patients who were in the hospital at the time of the investigation, many of whom had been there for lengthened periods, and five of them on prior occasions from one to five years ago, who state that they have always been treated with the utmost

consideration by the matron and nurses themselves and have never seen any patients treated otherwise. Two of these patients before their admission had been occupants of the Toronto and Buffalo hospitals respectively, and stated that their treatment in the St. Catharines hospital was if anything better than in those hospitals. As stated elsewhere the testimony of these patients was given privately with entire freedom from constraint, and it seems to me impossible had such abuses as those alleged prevailed, that some of them should not have observed and spoken of them. I think, therefore, that no charge of neglect or cruelty on the part of either matron or nurses has been established.

In regard to the charges under the third head, of cruelty, maltreatment and neglect on the part of the Medical Superintendant, I may say at once that there is not one iota of evidence pointing to either cruelty or maltreatment on the part of that officer, nor is there, so far as Miss Spence is concerned, any ground for charging him with neglect. By her own statement, Miss Spence on the evening of her admission to the hospital, was treated by both Dr. Greenwood and his wife at his private residence in a very kind manner, and she seems to have received from him while in the hospital every reasonable attention. The cruelty of which she complained consisted of certain surgical treatment adopted by Dr. Greenwood, which was not the same as she had undergone at the hands of the medical man who attended her prior to coming to the hospital, for which reason she imagined it was not necessary or proper, although no doubt suggested by the doctor's skill and experience as that best suited to her condition. I therefore consider all Miss Spence's statements in regard to cruelty or maltreatment on the part of the Medical Superintendent totally unfounded and entirely unworthy of a moment's consideration.

Evidence was given by a witness named Brassfort, and an affidavit put in, regarding a patient named Stoddard, now dead, the only material portion of which was the statement that he was admitted to the hospital on Thursday, January 26th, 1888, and remained there without being seen by any medical officer until the evening of the following Saturday. Dr. Greenwood being questioned in regard to this matter, admitted that at the period referred to in the affidavit, he had delegated his duties at the hospital to Dr. Oakley, at that time his partner in practice, and he was unable to say whether the statement was true or not. The matron, however, was able to state as a matter of fact that the man referred to, had been in the hospital as stated from Thursday evening until Saturday evening without being seen by Dr. Oakley, who was then in attendance. There would certainly seem to have been negligence in this case, but as I shall further on have some remarks to make in regard to the system now in vogue in regard to medical attendance, and some suggestions to make as to the desirability of organizing a medical staff, I do not deem it incumbent here to make any further comment on the subject.

The fourth ground of complaint is insufficiency and inferior quality of food and supplies. This branch of the case rests mainly on the allegations of Miss Spence, which the evidence shows with one exception to be quite groundless, and the affidavit of Stoddard, which seems equally unreliable. It was acknowledged by the matron and Mrs. McClive that the supply of butter is not as ample as might be desired, but with this exception the evidence fails to show that there

is any deficiency either in the quantity or quality of the food, or the manner in which it is cooked and served to the patients.

On the whole I am of opinion that there is little to complain of in the management of the hospital except in the medical department, but there the organization is radically wrong, in that there is but one medical man in any way connected with the institution. Such a state of things as this is so far removed from one's notions of the organization and functions of an hospital as to be ludicrous if the matter were not so serious.

One of the objects with which people go to hospitals is that they may have whatever advantage there may be in the concurrent advice of two, three or more physicians should their cases require it. But here is a one-man power institution. No physician in the city has the official right to enter that institution save one, the salaried superintendent thereof; so that so far as medical advice is concerned the patient might as well be the private patient of that man.

From the past history of the hospital, which is pretty well known to me, I am not disposed to be very severe upon the trustees for permitting this state of things. I am aware that these gentlemen made strenuous efforts to get the doctors of the town to agree with them and with each other so as to form a regular and proper hospital staff, and failed. But their failure was due to the fact that they were working on wrong lines. The physicians desired to have a good deal to say about the domestic affairs of the hospital, with which they should have nothing to do. They wished to have the hiring and discharging the matron and nurses and to have a general control of internal affairs. This the trustees very properly declined to permit, and there was something very like a strike of the doctors. Thereupon the Board concluded to employ one physician on salary, in the hope that their united efforts might be able to control one man. This plan secured one object they had in view, viz., peace; but there were some other things they did not secure, one of which was proper attention to the man who came into the hospital on Thursday and saw no doctor until Saturday night, the superintendent having delegated his duties to another who never attended to them, while he absented himself without the knowledge of the Board whose paid officer he was.

There can never be peace in an hospital where it is possible for the medical staff to come into any conflict of authority with the laymen or women who form the governing body, and so it is essential that the duties of each shall be well defined, and each kept strictly in line. The functions of a physician in an hospital differ little or none from those he performs when called to a patient in a private house. They are strictly professional and in no sense managerial. In the hospital he must be furnished with all the appliances necessary for the treatment of his patient, all his orders as to medicine, diet, nursing, etc., etc., must be implicitly obeyed, and should be given from day to day in writing to prevent mistakes or disputes, and when he is not satisfied he should complain to the matron; failing to get satisfaction from her he should go the Board. He has no more to do with the internal economy of the hospital than he has in the house of any gentleman where he is called to see a patient in private practise.

There ought to be no more difficulty in forming a medical staff in St. Catharines than there is in any other city, and I have heard of none elsewhere.

In this hospital the staff should consist of not less than six physicians, none of whom should be afore or after other; each should attend at the hospital at a fixed hour every day for his allotted week; all patients received during that week should be his own, and he should attend them until discharge or death, and not be allowed to transfer them to his successor at the end of his week, possibly at an

important crisis of the case. The transference of a case from one physician to another should be avoided except for special reasons; it usually has a bad effect upon the patient, leading him to think that the convenience of the doctor or the hospital is of more importance than his case, besides which the continuance of attendance upon the patients received by each physician leads generally to two, three or more professional men meeting at the hospital every day, making mutual consultation at any time when it is required easy and natural.

The connection between the nurse's home and the hospital is somewhat unique, and at a superficial glance would seem to be objectionable, but upon close enquiry it becomes apparent that the hospital financially is considerably the gainer by the connection. This branch of the service could not be so well and at the same time so economically done were the connection severed, at the same time I am aware that it has happened that the demand for nurses outside has left the hospital short-handed. Care must be taken that this does not happen in future. The claim of the hospital upon the home must in all cases rank first, and no nurses should be allowed to go out, if by so doing the full staff necessary for the hospital will be weakened.

There should be such a supply and assignment of duties of nurses as that there could be no possibility of such a complaint as Alda Spence made, of having to wait any length of time at all for attention; a few minutes' delay to a patient in pain is often magnified into an hour naturally enough, and above all there should be no rule that patients shall not call for attention except at certain intervals; nurses should be always in attendance. Sick people are very often more or less complaining and exacting, and none are more so than those suffering as Miss Spence is. These conditions, whenever they occur, must, as every good nurse knows, be met as ordinary features of the case, and a nurse who cannot deal with such a patient without showing a spirit of resentment and a desire to retaliate, is not fit for the wards of an hospital or a sick room.

These days of training schools for nurses are effecting a great revolution in hospital management. The advantage to the patients and comfort to physicians cannot be overestimated, still it is not unknown to my experience in hospital inspections and investigations to find nurses who are trained just a little too much. It is a somewhat hazardous thing to engraft upon an imperfectly trained intellect, too much technical knowledge; I am inclined to think that in some schools a good deal is sacrificed to technique. There is a danger of training out the woman and the nurse, and leaving behind a mischievous female doctor. A suffering patient would far rather have sweet womanly sympathy and a gentle hand in hers than to be told in semi-scientific terms that she is not nearly so bad as she imagines, and that she (the nurse) knows all about her ailment and will attend to her just when she needs it. It is not always reassuring to learn that the doctor does not know any too much, and that if the nurse had her own way she would change this and alter that. It is not meant that these remarks apply generally to the nursing in this hospital, but just in one instance I thought I saw some evidence of that superior knowledge to which I have referred, and which when found is so much better lost again. The matron in this hospital has too much work to do in the care and management of the two institutions, the hospital and the home. I find that there is no one to see that all the meals served to the patients are served as they ought to be. The breakfast for example, is left to the cook and the nurses, This should not be the case. The matron's duties should be so lightened that she can inspect personally all the meals served, and be held responsible to the Board therefor, and able to answer from personal knowledge all questions that may be asked.

In conclusion I am happy to be able to say that I do not consider that the General and Marine Hospital of St. Catharines has a superior in this Province, considering its means and opportunities, and when the changes which I have recommended have been made, it will amply maintain its high character, and continue in the future as it has in the past to do honour to the memory of its noble and single-hearted founder, the ever to be lamented Theophilus Mack.

I have the honour to be,
Sir,
Your obedient servant.

W. T. O'REILLY,
Inspector Prisons and Public Charities.

GENERAL HOSPITAL, GUELPH.

The following summaries shew the operations of this Hospital during the official year:—

Movements of patients.

Number under treatment, 1st October, 1888	37	
Admitted	397	
Births in the Hospital	6	
Total number under treatment	——	440
Discharged	380	
Died	23	
Under treatment, 30th September, 1889	37	
	——	440

Places received from.

City of Guelph	253	
County of Wellington	128	
Other counties in the Province	59	
	——	440

Sex.

Male	216	
Female	224	
	——	440

Nationalities.

Canadian	269	
English	81	
Irish	23	
Scotch	47	
United States	11	
Other countries	9	
	——	440

Religious Denominations.

Protestant	408	
Roman Catholic	32	
		440

Revenue.

Received from the Province of Ontario	$3,048 42
From the City of Guelph	1,000 00
From the County of Wellington	1,000 00
From paying patients	2,406 50
Subscriptions, donations, etc.	834 68
From sources not enumerated	197 26
Total	$8,486 86

Expenditure.

Butcher's meat	$602 80
Butter	263 90
Flour, bread and meal	346 09
Milk	31 31
Tea and coffee	113 80
Potatoes and other vegetables	80 12
Groceries and provisions not enumerated	916 78
Drugs and medicines	415 25
Surgical instruments	73 60
Beer, wine and spirits	88 25
Bedding, napery and general house furnishings	212 55
Brooms, brushes, mops, etc.	75 34
Fuel	926 04
Light—gas, oil and candles	182 09
Water supply	34 30
Hay and straw	60 24
Clothing	11 70
Ice	10 00
Salaries and wages	1,981 00
Taxes and insurance	.....
Contingencies	634 17
Repairs, ordinary	133 05
Interest and rent	503 05
Total	$7,695 43

Government grant for 1890.

Allowance for Hospital cases, 10,043 days at 20 cents	$2,008 60
Supplementary allowance, 10,043 days at 10 cents	1,004 30
Allowance for improper cases for Hospital treatment 1205 days at 7 cents	84 35
Total	$3,097 25

INSPECTIONS.

Copies of the reports made by me to the Government are amended:—

I inspected the General Hospital, Guelph, on the 29th of May.

There were 26 patients in residence on that date, 10 men, 10 women, and 6 children.

Great improvements have taken place in this Hospital recently, and it is now under present management a very efficient institution, doing its work in a thoroughly satisfactory manner.

I made a second inspection of the General Hospital, Guelph, on the 7th October.

There were 38 patients in residence on the day of my visit, viz., 12 males, 17 females, and 9 children. I found the Hospital in excellent order and condition in all respects.

ST. JOSEPH'S HOSPITAL, GUELPH.

The following summaries shew the operations of this Hospital during the official year:—

Movements of patients.

Number under treatment 1st October, 1888	23	
Admitted	349	
Total number under treatment		372
Discharged	329	
Died	18	
Under treatment, 30th September, 1889	25	
		372

Places admitted from.

City of Guelph	146	
County of Wellington	150	
Other counties	57	
Other countries	19	
		372

Sex.

Male	137	
Female	235	
		372

Nationalities.

Canadian	210	
English	7	
Irish	115	
Scotch	6	
United States	8	
Other countries	26	
		372

Religious denominations.

Protestant	29	
Roman Catholic	343	
		372

Revenue.

From the Province of Ontario	$2,323 54
From the City of Guelph	100 00
From the County of Wellington	800 00
From paying patients	544 83
Income from property	300 00
Subscriptions, donations, etc.	502 70
Other sources	225 25
Total	$4,796 32

Expenditure.

Butchers' meat	$ 545 77
Butter	156 90
Flour, bread and meal	291 30
Milk	105 00
Tea and coffee	194 83
Potatoes and other vegetables	160 00
Groceries and provisions, not enumerated	796 97
Drugs and medicines	387 33
Beer, wine and spirits	200 69
Bedding, napery and general housefurnishings	309 51
Brooms, brushes, mops, soap and cleaning appliances	177 50
Fuel	319 33
Light—gas, oil and candles	24 20
Hay and straw	105 70
Clothing for patients	60 00
Ice	5 25
Salaries and wages	174 55
Taxes and insurance	69 00
Contingencies	334 69
Repairs, ordinary	198 14
Total	$4,616 72

Government grant for 1890.

Allowance for Hospital cases 10,478 days at 20 cents	$2,095 60
Supplementary allowance of one-fourth of Hospital revenue	618 20
Allowance for improper cases for Hospital treatment 602 days, at 7 cents	42 14
Total	$2,755 94

INSPECTIONS.

Copies of the reports made to the Government by me are annexed:—

I made an inspection of the St. Joseph's Hospital, Guelph, on the 29th May. There were 30 patients in residence on that date, namely, 11 men, 16 women and 3 children.

Everything connected with the institution was found to be in its usual condition of good order.

I again visited the St. Joseph's Hospital, Guelph, on the 7th October. There were 28 patients in residence on that day, 11 males, 15 females, and 2 children. I found the Hospital in its usual excellent condition, so far as the local circumstances will permit. The Institution is badly off for an efficient system of heating and water supply.

GENERAL HOSPITAL, PEMBROKE.

The following summaries shew the operations of this Hospital during the official year:—

Movements of patients.

Number under treatment, 1st October, 1888	6	
Admitted	123	
Total number under treatment		129
Discharged	106	
Died	9	
Under treatment, 30th September, 1889	14	
		129

Places received from.

From the Town of Pembroke	27	
From the County of Renfrew	57	
Other counties	15	
United States	1	
Other countries	29	
		129

Sex.

Male	68	
Female	61	
		129

Nationalities.

Canadian	69	
English	10	
Irish	39	
Scotch	3	
United States	1	
Other countries	7	
	——	129

Religious Denominations.

Protestant	14	
Roman Catholic	115	
	——	129

Revenue.

From the Province of Ontario	$1,053 30
From the Dominion Government	.....
From the Counties of Renfrew and Pontiac	290 00
From paying patients themselves	540 00
From subscriptions, bequests and donations of private individuals	590 45
Total	$2,473 75

Expenditure.

Butchers' meat	$295 60
Butter	135 10
Flour, bread and meal	145 90
Milk	34 00
Tea and coffee	74 45
Potatoes and other vegetables	93 50
Groceries and provisions, not enumerated	155 60
Drugs and medicines	126 15
Beer, wine and spirits	36 70
Bedding, napery, and general house furnishings	192 85
Brooms, brushes, mops, soap, and cleaning appliances	51 95
Fuel	200 20
Light—gas, oil snd candles	47 50
Water	47 45
Hay and straw	140 25
Clothes for patients, including boots and shoes	100 55
Ice	9 95
Salaries and wages	228 00
Taxes and insurance	5 00
Coffins and funerals	30 00
Contingencies	257 60
Repairs, ordinary	82 50
Total	$2,470 80

Government grant for 1890.

Allowance for Hospital cases, 4,230 days at 20 cents -	$846 00
Supplementary allowance of one-fourth of Hospital Revenue - - - - - - - - - -	355 11
Total - - - - - - - - - -	$1,201 11

INSPECTION.

A copy of the report made by Mr. Christie to the Government upon this Hospital is annexed:—

I made an inspection of the Pembroke Hospital, on the evening of the 10th of April: and saw that the 10 patients then under treatment had retired for the night. I found the premises internally, and the surroundings also, in excellent condition.

The books and records were found in proper order.

I noticed that there had been a slight increase in the number admitted for the current year, when comparison was made with a like period for the previous year.

Mr. Christie instructed Mr. Nicholson, to make an inspection of this hospital. A copy of his report to me is annexed:—

I have the honor to report that, as instructed by you, I visited the General Hospital, Pembroke, on the 24th of July.

The patients in residence numbered 11; 6 men and 5 women, all of whom I saw; 101 patients have been received for treatment since the commencement of the present official year.

The hospital was in very satisfactory order, and the books were correctly kept.

GENERAL HOSPITAL, MATTAWA.

The following summaries shew the operations of this Hospital during the official year:—

Movements of patients.

Number under treatment, 1st October, 1888 - - -	14	
Admitted - - - - - - - - - -	197	
Total number under treatment - - - - -	——	211
Discharged - - - - - - - - - -	188	
Died - - - - - - - - - -	10	
Under treatment, 30th September, 1889 - - -	13	
	——	211

Places received from.

From the Village of Mattawa - - - - - -	40	
From the County of Renfrew - - - - -	136	
From other counties in the Province - - - -	25	
United States - - - - - - - -	10	
	——	211

Sex.

Male	186	
Female	25	
		211

Nationalities.

Canadian	124	
English	27	
Irish	47	
Scotch	6	
United States	7	
Other countries	....	
		211

Religious Denominations.

Protestant	16	
Roman Catholic	185	
Other religions	10	
		211

Revenue.

From the Province of Ontario	$1,231 20
From patients for maintenance and treatment	1,275 75
From subscriptions, bequests and donations of private persons	713 49
Total	$3,220 44

Expenditures.

Butcher's meat	$500 36
Butter	162 50
Flour, bread and meal	400 36
Milk	.....
Tea and coffee	75 15
Potatoes and other vegetables	150 25
Groceries and provisions, not enumerated	125 42
Drugs and medicines	75 00
Beer, wine and spirits	31 26
Bedding, napery and general house furnishings	102 16
Brooms, brushes, etc.	10 00
Fuel	300 06
Light—gas, oil and candles	40 00
Water supply	150 00
Hay and straw	58 25
Clothing for patients	10 15
Ice	4 00
Salaries and wages	300 00
Taxes and insurance	18 00
Coffins and funerals	15 00
Repairs, ordinary	45 60
Contingencies	36 35
Total	$2,609 87

Government grant for 1890.

Allowance for Hospital cases, 4,071 days at 20 cents	$814 20
Supplementary allowance, of 10 cents per day	407 10
Total	$1,221 30

INSPECTION.

Mr. Christie instructed Mr. Nicholson to make an inspection of this Hospital. A copy of his report to me is appended:

I have the honor to state that, as instructed by you, I inspected the General Hospital, Mattawa, on the 25th July, when there were five male patients in residence.

The wards were very clean and neat looking, and the institution was in commendable order throughout. The books were examined and found to be properly entered up.

THE JOHN H. STRATFORD HOSPITAL, BRANTFORD.

The following summaries shew the operations of this Hospital during the official year:—

Movements of patients.

Number under treatment, 1st October, 1888	30	
Admitted	257	
Births in the Hospital	5	
Total number under treatment		292
Discharged	247	
Died	20	
Under treatment, 30th September, 1889	25	
		292

Places admitted from.

From the City of Brantford	239	
From the County of Brant	42	
Other counties	11	
		292

Sex.

Male	178	
Female	114	
		292

Nationalities.

Canadian	168	
English	72	
Irish	31	
Scotch	9	
United States	9	
Other countries	3	
		292

Religious denominations.

Protestant		243
Roman Catholic		49
Other religions, or not known		...
		292

Revenue.

From the Province of Ontario	$2,319 81
From the City of Brantford	3,000 00
From patients for maintenance and treatment	1,090 13
From subscriptions, donations and bequests from private individuals	67 65
Total	$6,477 59

Expenditure.

Butchers' meat	$477 67
Butter	201 33
Flour, bread and meal	205 59
Milk	424 62
Tea and coffee	66 15
Potatoes and other vegetables	26 32
Groceries and provisions not enumerated	374 63
Drugs and medicine	213 51
Medical and surgical appliances	.....
Surgical instruments	.....
Beer, wine and spirits	83 00
Bedding, napery and general house furnishings	315 00
Brooms, brushes, mops, soap and cleaning appliances	35 00
Fuel	318 75
Light—gas, oil and candles	58 12
Water supply	.....
Hay and straw	.....
Clothing for patients, including boots and shoes	.....
Ice	40 00
Salaries and wages	1,574 33
Taxes and insurance	14 05
Coffins and funerals	21 00
Contingencies	215 65
Repairs, ordinary	101 47
Total	$4,767 45

Government grant for 1890.

Allowance for Hospital cases, 8,249 days at 20 cents	$1,649 80
Supplementary allowance, 8,249 days at 10 cents	824 90
Allowance for improper cases for Hospital treatment, 853 days at 7 cents	59 71
Total	$2,534 41

INSPECTIONS.

Copies of the reports made to the Government by me are annexed:

The John H. Stratford Hospital was inspected by me on the 22nd May. There were under treatment on that date 13 men, 8 women and 3 children, making a total of 24 patients.

This Hospital is under very efficient management and is giving, as I have reason to know, entire satisfaction to the community.

The walls and ceilings have been beautifully decorated recently, and the institution is presenting a more than usual pleasing appearance. There has been a steady march of improvement since its opening, and apparently the end is not yet.

The John H. Stratford Hospital was inspected by me on the 22nd November On that occasion there were 24 patients in residence, 13 men, 6 women and 5 children.

The number of patients admitted during the past two months was 54, of which 29 were cases of typhoid, thus showing that Brantford is still maintaining its reputation as a city in a most unsanitary condition.

I found the Hospital in excellent order and condition.

ST. JOSEPH'S HOSPITAL, PORT ARTHUR.

The following summaries shew the operations of this Hospital during the official year:—

Movements of patients.

Number under treatment, 1st October, 1888	12	
Admitted	124	
Total number under treatment	——	136
Discharged	117	
Died	8	
Under treatment, 30th September, 1889	11	
	——	136

Places admitted from.

From the town of Port Arthur	76	
From the Canadian Pacific Railway	21	
From other parts of the Province	25	
From other countries	14	
	——	136

Sex.

Male	97	
Female	39	
	——	136

Nationalities.

Canadian	67	
English	21	
Irish	21	
Scotch	10	
United States	5	
Other countries	12	
	——	136

Religious denominations.

Protestant	75	
Roman Catholic	61	
Other denominations	..	
	——	136

Revenue.

From the Province of Ontario	$1,231 75
From the town of Port Arthur	400 00
From other municipalities in the Province	.....
From paying patients themselves	589 00
From subscriptions, donations, etc.	750 00
Total	$2,970 75

Expenditures.

Butchers' meat	$285 00
Butter	83 00
Flour, bread and meal	163 00
Milk	85 00
Tea and coffee	76 00
Potatoes and other vegetables	70 00
Groceries and provisions not enumerated	105 00
Drugs and medicines	350 00
Surgical instruments	.....
Beer, wine and spirits	90 00
Bedding, etc.	40 00
Brooms, brushes, mops, soap and cleaning appliances	47 00
Fuel	180 00
Light—gas, oil and candles	45 00
Water supply	39 00
Clothing for patients, including boots and shoes	41 00
Salaries and wages	200 00
Taxes and insurance	.....
Coffins and funerals	29 00
Contingencies	155 00
Repairs, ordinary	145 00
Total	$2,228 00

Government grant for 1890.

Allowance for Hospital cases 4,226 days at 20 cents	$845 20
Supplementary allowance, 4,226 days at 10 cents	422 00
Allowance for improper cases for Hospital treatment, 272 days at 7 cents	19 04
Total	$1,286 24

INSPECTION.

A copy of the report made by me to the Government is annexed.

I visited the St. Joseph's Hospital, Port Arthur, on the 22nd of July.

The number of patients in residence was 9, viz., 2 males, 4 females, and 3 children.

I was much pleased to find that there had been a great improvement in this hospital since my last inspection. It now ranks as first-class in every respect; there is not a neater or more comfortable hospital in the province.

It contains twenty-five beds which I consider quite equal to the needs of this locality, and will probably be sufficient for some years to come.

BELLEVILLE HOSPITAL.

The following summaries shew the operations of this Hospital during the official year:—

Movements of patients.

Number under treatment, 1st October, 1888	14	
Admitted	98	
Births in Hospital	...	
Total number under treatment		112
Discharged	98	
Died	8	
Under treatment, 30th September, 1889	6	
		112

Places admitted from

From the City of Belleville	72	
From the County of Hastings	35	
Other counties	5	
		112

Sex.

Male	69	
Female	43	
		112

Nationalities.

Canadian	69	
English	16	
Irish	13	
Scotch	9	
United States	1	
Other countries	4	
	——	112

Religious Denominations.

Protestant	86	
Roman Catholic	26	
Other religions or not known	..	
	——	112

Revenue.

From the Province of Ontario	$1,065 18
From the Dominion Government	366 00
From the City of Belleville	18 00
From the County of Hastings	.....
From patients for maintenance and treatment	984 61
From subscriptions, donations and bequests from private individuals	1 143 16
From other sources	552 90
Total	$4,129 85

Expenditures

Butchers' meat	$267 17
Butter	96 87
Flour, bread and meal	161 37
Milk	156 70
Tea and coffee	67 28
Potatoes and other vegetables	42 95
Groceries and provisions not enumerated	253 45
Drugs and medicines	268 00
Medical and surgical appliances	64 00
Beer, wine and spirits	12 60
Bedding, napery and general house furnishings	679 76
Brooms, brushes, mops, soap and cleaning appliance	30 06
Fuel	351 90
Light—gas, oil and candles	39 45
Water	73 00
Hay and straw	12 39
Clothing for patients	14 85
Ice supply	10 10
Salaries and wages	1,022 55
Taxes and insurance	.....
Contingencies	274 00
Coffins and funerals	....
Repairs, ordinary	78 23
Total	$3,976 68

Government grant for 1890.

Allowance for Hospital cases 3,375 days at 20 cents	$675 00
Supplementary allowance 3,375 days at 10 cents	337 50
Allowance for improper cases for Hospital treatment 409 days at 7 cents	28 63
Total	$1,041 13

INSPECTIONS.

Copies of the reports made to the Government by Mr. Christie upon this Hospital are annexed :—

I visited the Belleville Hospital on the 6th June, and made a statutory inspection. There were under treatment 17 patients, 9 males, 7 females and 1 youth under 12 years of age. The number has been increased lately by patients received who were injured in the late railway accident three or four miles distant, on the 18th ultimo.

I found the Hospital in excellent order in all the occupied parts, and the day room and dormitories were tastefully and neatly kept. The large ward, originally intended for male patients, still remains unfitted, and has, except on one or two occasions, remained unused.

I found the books properly kept.

I made a second inspection of the Belleville Hospital on the 10th October; 5 male and 1 female were under treatment. 112 patients have been admitted during the past year, showing a slight increase in number when compared with the preceding year.

Improvements are being made from time to time, which are adding materially to the comfort and homelike appearance of the Institution, and the furnishings throughout are quite ample for that part of the Institution which is now occupied.

I found the premises extremely neat and clean, and the books properly and neatly kept, and ample evidence that due care and consideration was given to all matters pertaining to the interests of the Institution.

ST. VINCENT DE PAUL HOSPITAL, BROCKVILLE.

The operations of this Hospital during the period under report are indicated in the following summary : —

Remaining under treatment 1st October, 1888	4	
Admitted	55	
Number of births in the Hospital	...	
Total number under treatment		59
Discharged	46	
Died	4	
Under treatment on 30th September, 1889	9	
		59

Places admitted from.

From the Town of Brockville	30	
From the County of Leeds	14	
From other counties in the Province	15	
		59

The sex, religious denominations and nationalities of the patients are returned as follows:—

Sex.

Males	37	
Females	22	
	——	59

Nationalities.

Canadian	35	
English	3	
Irish	10	
Scotch	2	
United States	..	
Other countries	9	
	——	59

Religious denominations.

Protestants	30	
Roman Catholics	29	
	——	59

The two annexed statements shew the revenue and expenditure respectively of the Hospital during the year:—

Revenue.

From the Province of Ontario	$277 80
From paying patients themselves	409 00
From all sources not enumerated	33 05
	$719 85

Expenditure.

Butchers' meat	$119 97
Butter	49 91
Flour, bread and meal	51 04
Milk	52 05
Tea and coffee	39 97
Potatoes and other vegetables	11 94
Groceries and provisions not enumerared	173 21
Drugs and medicines	54 17
Beer, wine and spirits	15 38
Bedding, napery and general housefurnishings	31 37
Brooms, brushes, mops, soap and cleaning appliances	3 23
Fuel	21 42
Light—gas, oil and candles	6 58
Hay and straw	....
Clothing for patients, including boots and shoes	16 10
Ice supply	....
Salaries and wages	....
Coffins and funerals	....
Contingencies	46 37
Repairs, ordinary	37 69
Total expenditure for maintenance	$ 730 40

Government grant for 1890.

Allowance of 20 cents per day on 2,130 days' treatment of patients - - - - - -	$426 00
Supplementary allowance of one-fourth of Hospital revenue - - - - - - -	110 52
	$536 52

Application having been made to put this Hospital on the list of institutions receiving Provincial aid, Mr. Christie was desired to visit the Hospital and report upon it. This he did, and a copy of his report to the Government is annexed:—

"I made an inspection of the St. Vincent de Paul Hospital, Brockville, on the 27th December, 1888. I learned that the Institution had been opened in November, 1887, under the auspices of the Sisters of Charity. The site it occupies is well chosen, standing on high ground and being within easy access from the town and surrounding country. The property was acquired a short time before the opening of the hospital, and payment of the purchase money arranged for, which practically leaves the property unencumbered.

"The present accommodation for patients consists of four separate rooms or wards, containing a total of twelve beds. These apartments are well furnished and in every respect comfortable and well kept. The building is heated by hot air, and a water supply from the town water-works is being arranged for.

"The rules and regulations for the government of the Institution are in process of completion. So far, all the necessary steps for organization have been taken, and a visiting board of physicians has been appointed. These physicians control the admissions and discharges, besides alternately giving their services to the sick in the Hospital.

"I found four patients under treatment on the day of my visit, who appeared to be well and properly cared for. Fifty-seven patients had been received since the opening of the Institution up to the 30th September last.

"I have the honour to recommend that an Order in Council be passed ordering that the St. Vincent de Paul Hospital, Brockville, be taken as named in Schedule A of the Charity Aid Act, and that it receive aid in accordance with the provisions of that Act from the date of its opening, namely, 28th November 1887. I may state the stay of the patients from that date to the 30th September 1888, was equal to 926 days, which would entitle the Institution to receive provided this recommendation be approved, the sum of $277 80."

The Order in Council, as recommended, was duly passed, and was subsequently ratified by the Legislative Assembly.

Mr. Christie made an inspection of this hospital on the 26th September, and saw the patients under treatment, 3 males and 5 females. Of the females 4 were surgical cases.

I found the patients neatly and comfortably provided for, and all their surroundings were well adapted for their relief.

The premises both internally and externally were neat and clean. In all, 53 patients had been admitted up to the date named of the current year. Although the accommodation is limited, what is provided is in all respects suitable, and kept in most excellent order.

Four deaths are recorded as having taken place during the time mentioned.

THE BROCKVILLE GENERAL HOSPITAL.

The following summaries shew the operations of this Hospital during the official year:—

Number under treatment on the 7th March, 1889	48	
Number admitted	2	
Total number under treatment		50
Discharged	32	
Died	4	
Remaining under treatment on the 30th September, 1889	14	
		50

Places admitted from.

From the Town of Brockville	30	
From the Counties of Leeds and Grenville	17	
From other counties in the Province	1	
From the United States	..	
Other countries	2	
		50

Sex.

Males	28	
Females	22	
		50

Nationalities.

Canadian	22	
English	7	
Irish	9	
Scotch	9	
United States	1	
Other countries	2	
		50

Religious Denominations.

Protestants	49	
Roman Catholics	1	
		50

Revenue.

From the Province of Ontario	.....
From the Counties of Leeds and Grenville	200 00
From paying patients	313 25
From subscriptions, bequests, and donations of private individuals	1,314 23
From other sources, not enumerated	123 00
	$1,950 48

Expenditure.

Butchers' meat	$68 69
Butter	54 74
lour, bread and meal	51 95
Milk	72 00
Tea and coffee	14 05
Potatoes and other vegetables	15 23
Groceries and provisions, not enumerated	24 00
Drugs and medicines	103 99
Medical and surgical appliances	45 30
Beer, wine and spirits	35 40
Bedding, napery and general house furnishings	441 78
Brooms, brushes, mops, soap and cleaning appliances	12 95
Fuel	180 00
Light—gas, oil and candles	40 00
Water supply	.....
Hay and stray	.....
Clothing for patients, including boots and shoes	.....
Ice supply	.....
Salaries and wages	409 50
Taxes and insurance	45 00
Coffins and funerals	.....
Contingencies	42 00
Repairs, ordinary	69 26
Total	$1,725 84

Government grant for 1890.

Allowance for 1,304 days' treatment of patients, at 20 cents per day	$260 80
Supplementary allowance, 1,304 days at 10 cents	130 40
Total	$391 20

INSPECTIONS.

A copy of the report made to the Government upon this hospital by Mr. Christie is appended :—

In accordance with instructions I visited the Brockville General Hospital on the 2nd December.

From the records I found that the institution was opened on the 7th March last, and that 66 patients have been treated up to the date of my visit.

The hospital is incorporated under the general Act and the value of the realty may be estimated at about $10,000, $6,000 of which has been liquidated. Its organization appears to be on a very satisfactory basis, and such rules and regulations have been adopted as are likely to insure the due care and attention of the staff to the routine work, and the conducting of the institution in the interest and for the well-being of the community.

So far as the structural arrangements have been completed, the building is commodious and well adapted for the purpose for which it is designed. The furnishings are sufficient for the present acquirements.

On the day of my visit there were 12 patients under treatment, 7 males and 5 females, who appeared to be receiving every attention from the nurses and medical staff in attendance.

The building now finished which will accommodate from 35 to 40 patients, is only the central portion of the original design, to which wings are to be added. In the meantime there is only one main stairway communicating with the different flats (three in number) of the building. In event of a fire occurring in the building, this single means of egress would be insufficient for the removal of patients occupying the upper floors. Upon pointing this out to the authorities it was fully agreed that provision should be made to meet this difficulty by erecting an annex in the rear of the hospital, containing an additional stairway. This addition will be made next season.

For its maintenance expenditure the hospital has heretofore relied upon contributions from the Town of Brockville and the surrounding country, and aid is now sought under the provisions of "The Charity Aid Act."

I would therefore recommend that the prayer of the petition be granted, and an Order in Council be passed ordering that the General Hospital, Brockville, be taken as named in Schedule "A" of "The Charity Aid Act," and that it receive aid in accordance with the provisions of that Act, since the date of its opening, namely, 7th March last.

TWENTIETH ANNUAL REPORT

OF THE

INSPECTOR OF PRISONS AND PUBLIC CHARITIES

UPON THE

HOUSES OF REFUGE

AND

ORPHAN AND MAGDALEN ASYLUMS

AIDED BY THE

PROVINCE OF ONTARIO,

BEING FOR THE YEAR ENDING 30TH SEPTEMBER, 1889.

PRINTED BY ORDER OF THE LEGISLATIVE ASSEMBLY,

TORONTO:
PRINTED BY WARWICK & SONS, 68 AND 70 FRONT STREET WEST.
1890.

OFFICE OF THE

INSPECTOR OF PRISONS AND PUBLIC CHARITIES, ONTARIO,

PARLIAMENT BUILDINGS, TORONTO, December, 1889.

SIR,—I have the honour to transmit herewith, to be presented to His Honour, the Lieutenant Governor, the Twentieth Annual Report upon the Houses of Refuge and Orphan and Magdalen Asylums aided by the Province, being for the year ending 30th September, 1889.

I have the honour to be, Sir,

Your most obedient servant,

R. CHRISTIE,

Inspector.

The Honourable

J. M. GIBSON, M.P.P.,

Secretary for the Province of Ontario,

HOUSES OF REFUGE AND ORPHAN AND MAGDALEN ASYLUMS.

TWENTIETH

ANNUAL REPORT

OF THE

Inspector of Prisons & Public Charities

FOR THE

PROVINCE OF ONTARIO.

PARLIAMENT BUILDINGS,
Toronto, October, 1889.

To the Honourable SIR ALEXANDER CAMPBELL, K.C.M.G.,
Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:—

Herewith I beg to submit the Twentieth Annual Report upon the Houses of Refuge and the Orphan and Magdalen Asylums aided by the Province of Ontario, being for the official year ending on the 30th September, 1889.

I have the honour to be,
Your Honour's most obedient servant,

R. CHRISTIE,
Inspector.

CONTENTS.

	Page.
Houses of Refuge	9-54
Number of Refuges aided by the Province	9
Table shewing names and operations of Refuges	9
Sexes of inmates	10
Religious denominations of inmates	10
Nationalities of inmates	10
Previous residences of inmates	10
Aggregate and average stay of inmates	11
Grants to Refuge for 1889, table shewing	12
Table of amounts expended for maintenance	13
Separate Reports upon Refuges	14-54
House of Industry, Toronto	14-15
House of Providence, Toronto	16-17
Home for Incurables, Toronto	18-19
Aged Women's Home, Toronto	19-20
St. John's Hospital, Toronto	20-22
Convalescent Home, Toronto	22-24
The Church Home, Toronto	24-26
House of Refuge, Hamilton	26-27
Home for Aged Women, Hamilton	27-28
House of Industry, Kingston	28-30
House of Providence, Kingston	30-32
Protestant Home for Aged and Friendless, London	32-33
Roman Catholic House of Refuge, London	33-35
Home for Aged Women, London	35-36
St. Patrick's Refuge, Ottawa	36-37
St. Charles' Hospice, Ottawa	37-39
Home for the Aged, Ottawa	39-41
Refuge Branch, Orphan's Home, Ottawa	41-42
House of Providence, Guelph	42-43
Protestant Home, St. Catherines	44
The Thomas Williams' Home, St. Thomas	45-46
House of Providence, Dundas	46-47
Home for the Friendless, Chatham	48-49
The Widows' Home, Brantford	49-50
The Home for the Friendless, Belleville	51-52
The Protestant Home, Peterborough	52-53

	Page.
Orphan Asylums	55
Increase in number of Inmates	55
Sex, religious denominations, etc., of the children	55
Total number maintained	56
Grants to Orphan Asylums for 1890, table of	58
Cost of maintaining Asylums, table of	57
Aggregate stay of Inmates	58
Separate Reports upon Orphan Asylums	59-89
Roman Catholic Orphan Asylum, Toronto	59-60
Protestant Orphans' Home, Toronto	60-61
Girls' Home, Toronto	61-62
Boys' Home, Toronto	62-63
Newsbows' Lodgings, Toronto	63-64
Infants' Home, Toronto	65-66
St. Nicholas Home, Toronto	66-67
Hospital for Sick Children, Toronto	68-69
The Haven	69-70
St. Mary's Orphan Asylum, Hamilton	70-71
Protestant Orphan Asylum, Hamilton	71-72
Boys' Home, Hamilton	72-73
Girls' Home, Hamilton	73-74
Home for the Friendless, Hamilton	75-76
Orphans' Home, Kingston	76-77
House of Providence Orphanage, Kingston	78-79
Hotel Dieu Orphanage, Kingston	79-80
Orphans' Home, Ottawa	80-81
St. Patrick's Orphan's Asylum, Ottawa	81 82
St. Joseph's Orphan Asylum, Ottawa	82-83
Roman Catholic Orphans' Home, London	84
Protestant Orphans' Home, London	85
Women's Refuge and Infants' Home, London	86
Protestant Home (Orphanage Branch), St. Catharines	87
St. Agatha's Orphanage Asylum	88
Orphans' Home, Fort William	89
Magdalen Asylums	91-96
Table shewing movements of inmates	91
Religious denominations, etc., of inmates	91
Government grants, table of	92
Maintenance, cost of	92
Separate Reports	93-96
Industrial Refuge, Toronto	93
Good Shepherd's Refuge for Fallen Women, Toronto	94-95
Good Shepherd Magdalen Asylum, Ottawa	95-96

HOUSES OF REFUGE.

There has not been any increase in the number of Institutions receiving aid under Schedule B of the Charity Aid Act during the past year. Nevertheless there has been an increase in the number maintained of 323 as compared with 1888; there was also a small increase in the number of deaths.

The first table gives a summary of the operations of each institution during the year. The totals of a similar table included in the report for 1888 are also added, so that comparison can be made.

NAMES OF REFUGES.	Locations.	Number of persons in the Refuges on 1st October, 1888.	Number admitted to Refuges during the year.	Total number under lodgment during the year ending 30th Sept., 1889.	Number discharged during the year.	Number of deaths during the year.	Number of persons remaining in Refuges on the 30th Sept., 1889.
House of Industry	Toronto	75	59	134	49	13	72
House of Providence	"	296	252	548	185	54	309
Home for Incurables	"	79	51	130	12	24	94
Aged Women's Home	"	15	5	20	3	1	16
St. John's Hospital	"	5	139	144	119	4	21
Convalescent Home	"	11	202	213	199	3	11
The Church Home	"	12	11	23	10	1	12
House of Refuge	Hamilton	106	96	202	91	10	101
Home for Aged Women	"	44	99	143	95	5	43
House of Industry	Kingston	67	84	151	54	26	71
House of Providence	"	5	2	7	3	...	4
Protestant Home for Aged and Friendless	London	47	31	78	23	3	52
Roman Catholic House of Refuge	"	12	6	18	2	1	15
Home for Aged Women	"	108	89	197	78	9	110
St Patrick's Refuge	Ottawa	75	38	113	20	18	75
St. Charles Hospice	"	18	14	32	7	2	23
Home for the Aged	"	14	12	26	10	2	14
Orphan's Home (Refuge Branch)	"	40	78	118	76	1	41
House of Providence	Guelph	3	2	5	2	.....	3
Protestant Home (Refuge Branch)	St. Catharines	18	12	30	13	...	17
The Thomas Williams Home	St. Thomas	89	50	139	45	12	82
House of Providence	Dundas	14	13	27	7	4	16
Home for the Friendless	Chatham	10	7	17	6	2	9
The Widow's Home	Brantford	9	4	13	2	2	9
The Home for the Friendless	Belleville	17	16	33	14	2	17
The Protestant Home	Peterborough	22	2	24	.....	1	23
Totals, 1889		1211	1374	2585	1125	200	1260
Totals, 1888		1091	1271	2362	986	180	1196

The usual information obtained from each Refuge, in respect of sex, religious denominations, nationalities, and previous residences of the inmates, has been summarized as under:

Sex.

Male	1,016	
Female	1,569	
		2,585

Religious Denominations.

Roman Catholic	1,884	
Protestant	701	
		2,585

Nationalities.

Canadian	549	
English	425	
Irish	1,386	
Scotch	135	
United States	64	
Other Countries	26	
		2,585

Previous Residence.

Received from Cities or Towns in which the Refuges are located	1,686	
Received from Counties in which the Refuges are located	290	
Received from other Counties in the Province	399	
Emigrants and Foreigners	210	
		2,585

NAMES OF REFUGES.	Location.	Total number of inmates during the year.	Total stay in days during the year.	Average stay per Inmate in days.
House of Industry	Toronto	134	31676	237
House of Providence	"	548	113998	280
Home for Incurables	"	130	32678	251
Aged Women's Home	"	20	5875	294
St. John's Hospital	"	144	4656	32
Convalescent Home	"	213	5450	25
The Church Home	"	23	4156	180
House of Refuge	Hamilton	202	38729	191
Home for Aged Women	"	24	8014	334
House of Industry	Kingston	143	18579	130
House of Providence	"	151	30975	205
Protestant Home for Aged and Friendless	London	7	2266	224
Roman Catholic House of Refuge	"	78	17797	228
Home for Aged Women	"	18	5314	295
St. Patrick's Refuge	Ottawa	197	40830	206
St. Charles Hospice	"	113	27153	240
Home for the Aged	"	32	8248	257
Orphan's Home (Refuge Branch)	"	26	5400	208
House of Providence	Guelph	118	14513	123
Protestant Home (Refuge Branch)	St. Catharines	5	1111	222
The Thomas Williams Home	St. Thomas	30	6999	233
House of Providence	Dundas	139	32745	235
Home for the Friendless	Chatham	27	5407	200
The Widow's Home	Brantford	17	4496	264
The Home for the Friendless	Belleville	13	4054	312
The Protestant Home	Peterborough	33	6726	203
Totals, 1889		2585	477845	185
Totals, 1888		2362	433379	184

NAME OF REFUGES.	Location.	Aggregate stay of inmates.	Fixed allowance of 5 cents per day for aggregate stay of inmates.	Amount received from all sources other than Government.	Supplementary allowance of $\frac{1}{4}$ of such receipts, provided amount does not exceed the 2 cents allowance.	Supplementary allowance of 2 cents per day.	Total Government allowance to each House of Refuge for the year 1890.
			$ c.	$ c.	$ c.	$ c.	$ c.
House of Industry	Toronto	31676	1583 80	13713 95		633 52	2217 32
" Providence	"	85606	4280 30	15943 73		1712 12	10251 22
" " (incurable ward	"	28392	2839 20			1419 60	
Home for Incurables	"	32678	3267 80	9709 54		1633 90	4901 70
Aged Women's Home	"	5875	293 75			117 50	411 25
St. John's Hospital	"	4656	465 60	4586 55		232 80	698 40
Convalescent Home	"	5450	545 00	3140 29		272 50	817 50
The Church Home	"	4156	207 80	1320 91		83 12	290 92
House of Refuge	Hamilton	38729	1936 45	5209 47		774 58	2711 03
Home for Aged Women	"	8014	400 70			160 28	560 98
House of Industry	Kingston	18579	928 95	1703 00		371 58	1300 53
House of Providence	"	30975	1548 75	6703 63		619 50	2168 25
Protestant Home for Aged and Friendless	London	2266	113 30	3683 43		45 32	158 62
Roman Catholic House of Refuge	"	17797	889 85	17301 37		355 94	1245 79
Home for Aged Women	"	5314	265 70	1150 86		106 28	371 98
St. Patrick's Refuge	Ottawa	40830	2041 50			816 60	2858 10
St. Charles Hospice	"	27153	1357 65	1919 51		543 06	1900 71
Home for the Aged	"	8248	412 40	1686 29		164 96	577 36
Orphan's Home (Refuge Branch)	"	5400	270 00			108 00	378 00
House of Providence	Guelph	14513	725 65	1531 57		290 26	1015 91
Protestant Home	St. Catharines	1111	55 55			22 22	77 77
The Thomas Williams Home	St. Thomas	6999	349 95	883 10		139 98	489 93
House of Providence	Dundas	32745	1637 25	5223 90		654 90	2292 15
Home for the Friendless	Chatham	5407	270 35	2640 59		108 14	378 49
The Widows' Home	Brantford	4496	224 80	572 34		89 92	314 72
The Home for the Friendless	Belleville	4054	202 70	241 21		81 08	283 78
The Protestant Home	Peterboro	6726	336 30	1008 05		134 52	470 82
Totals 1889		497845	27451 05	99873 29		11692 18	39143 23
Totals 1888		433379	24815 25	87512 74		10495 36	35210 61

NAME OF REFUGE.	Location.	Aggregate stay of Inmates.	Cost of Dietaries.	Expenditure for fuel, salaries and wages, and all general expenses.	Total expenditure, exclusive of extraordinary repairs.	Average cost per inmate per day.
			$ c.	$ c.	$ c.	cents.
House of Industry	Toronto	31676	5941 59	8098 95	14040 54	44.33
" Providence	"	113998	10207 14	11446 05	21653 19	19.00
Home for Incurables	"	32678	4743 93	8215 19	12959 12	39.63
Aged Women's Home	"	5875	.....	.....	*	.....
St. John's Hospital	"	4656	1229 71	3627 96	4857 67	$1 04.00
Convalescent Home	"	5450	1361 80	1386 02	2747 82	50.42
The Church Home	"	4156	473 62	767 05	1240 67	29.85
House of Refuge	Hamilton	38729	4721 83	3037 82	7759 65	20.03
Home for Aged Women	"	8014	.....	.....	*	.....
House of Industry	Kingston	18579	1506 77	1462 98	2969 75	15.98
House of Providence	"	30975	3291 83	3662 20	† 6954 03	.....
Protestant Home for Aged and Friendless	London	2266	1546 18	2560 89	† 4107 07	.....
Roman Catholic House of Refuge	"	17797	6477 30	10189 36	† 16666 66	.....
Home for Aged Women	"	5314	603 32	921 08	1524 40	28.67
St. Patrick's Refuge	Ottawa	40830	.....	.....	*	.....
St. Charles Hospice	"	27153	1961 22	1703 14	3664 36	13.05
Home for the Aged	"	8248	763 53	1023 52	1787 05	21.67
Orphans' Home (Refuge Branch)	"	5400	.....	.....	*	.....
House of Providence	Guelph	14513	1380 22	1704 63	3084 85	21.25
Protestant Home	St. Catharines	1111	.....	.....	*	.....
The Thomas Williams Home	St. Thomas	6999	652 08	633 85	† 1285 93	.....
House of Providence	Dundas	32745	5238 34	4527 97	9766 31	29.83
Home for the Friendless	Chatham	5407	698 94	1504 37	2203 31	40.75
The Widows' Home	Brantford	4496	380 87	539 94	920 81	20.48
The Home for the Friendless	Belleville	4054	335 82	142 61	478 43	11.80
The Protestant Home	Peterborough	6726	670 52	667 12	1337 64	19.90
Totals, 1889		477845	54186 56	67822 70	122009 26	.....
Totals, 1888		433397	50774 81	680002 15	118776 96	.....

* Included with Orphanage Branch. † Includes expenditure of Orphanage Branch.

SEPARATE REPORTS.

HOUSE OF INDUSTRY, TORONTO.

Full particulars of the operations of this institution will be found in the annexed summaries.

Movements of Inmates.

In residence, 1st October, 1888	75	
Admitted	59	
Total number of inmates		134
Discharged	49	
Died	13	
In residence, 30th September, 1889.	72	
		134

Places Admitted From.

From the City of Toronto	127	
From the County of York and other counties	3	
Emigrants and foreigners	4	
		134

Sex.

Males	92	
Females	42	
		134

Nationalities.

Canadian	9	
English	62	
Irish	46	
Scotch	12	
United States	2	
Other countries	3	
		134

Religious Denominations.

Protestant	124	
Roman Catholic	10	
		134

Receipts.

From the Province of Ontario	$1,760 36
From the City of Toronto	8,000 00
From inmates	155 29
Income from property belonging to the House	924 50
Subscriptions and donations of private individuals	4,634 16
From other sources	....
	$15,474 31

Expenditures.

Food of all kinds	$5,941 59
Clothing, furniture and furnishings	405 85
Fuel, light and cleaning	4,619 45
Salaries and wages	825 00
Other expenditures	2,750 79
	$14,542 68

Government Aid for 1890.

Allowance for 31,676 days at 5 cents	$1,583 80
Supplementary aid, at 2 cents per day	633 52
Total	$2,217 32

INSPECTIONS.

Copies of the reports made by me to the Government are annexed :—

The House of Industry, Toronto, was inspected by me on the 13th of March. on that day there were 81 old people cared for as permanent residents, 54 males, and 27 females. There has been distributed, provisions, fuel, etc., from 1st December, to date in 1,250 cases. In this part of the work the expenditure of the Institution, has increased considerable during the past winter, and about 75 persons on an average have been afforded casual relief each day during the winter.

A test is now being made of a system, to more thoroughly supervise the work of admitting persons for casual relief and shelter. And so far as the test has been put in operation, the result appears to be very satisfactory. All persons making application for lodging, are furnished with a cot and night clothing, blankets, etc., and they are required to take a bath before going to bed; they are also required to saw one and a quarter cords of wood as compensation for their keep. In order to make a practical test of this arrangement, a section of the Institution has been refitted for the purpose and the appliances, baths, etc., are well arranged.

I found that entries in the daily record had been neglected for some time, and instructions have been given that strict attention must be paid to this matter in the future.

The Institution was clean and in good order.

I made an inspection of the House of Industry, Toronto, on the 16th Sept. There were 71 persons in residence, 46 adult males and 25 females.

Since the date of my last visit, no noticeable change appears in the working of this institution.

The usual routine work was being efficiently performed, and I found the premises well kept and in good order. 1,291 families have received out-door relief during the year, principally during the winter months.

The new casual wing is not required during the summer months, but as winter approaches it is fully occupied by the "tramp" class who are forced to seek shelter.

HOUSE OF PROVIDENCE, TORONTO.

Full particulars of the operations of this Institution will be found in the annexed summaries.

Movements of Inmates.

In residence, 1st October, 1888	296	
Admitted	252	
Total number of inmates		548
Discharged	185	
Died	54	
In residence, 30th September, 1889	309	
		548

Places admitted from.

City of Toronto	383	
County of York, and other counties of Ontario	155	
Emigrants and foreigners	10	
		548

Sex.

Male	193	
Female	355	
		548

Nationalities.

Canadian	123	
English	35	
Irish	369	
Scotch	5	
Other countries	16	
		548

Religious Denominations.

Protestant	19	
Roman Catholic	529	
		548

Receipts.

From the Province of Ontario	$9,835 21
From the City of Toronto	1,000 00
From inmates, in payment of board	2,820 35
Subscriptions, donations, and bequests of private individuals	12,123 38
From other sources	....
	$25,778 94

Expenditures.

Food of all kinds	$10,207 14
Clothing, furniture and furnishings	2,381 32
Fuel, light and cleaning	2,359 15
Wages	150 00
Ordinary repairs	425 71
Additions to buildings	4,102 53
Other expenditures	6,129 87
	$25,755 72

Government Aid for 1890.

Allowance for 85,606 days, at 5 cents	$4,280 30
Supplementary aid, 2 cents per day	1,712 12
	$5,992 42

Incurable Branch.

Allowance for 28,392 days, at 15 cents	$4,258 80
Total	$10,251 22

INSPECTIONS.

Copies of the reports made by me to the Government are annexed :—

I made an Inspection of the House of Providence, Toronto, on the 6th of May. An examination of the register shewed that there were 313 inmates in residence, 111 adult males, and 202 adult females. Of the above number, 71 were registered as incurables, 29 males and 42 females, all of whom were properly admitted under the requirements specifying that a certificate of two practising physicians should be had determining their admission to the incurable ward of the Institution.

I found the House in excellent order, in all its departments. The lawn and yards were neat and tidily kept.

The books and records are also properly kept.

All of the plumbing of the Institution has lately been refitted at a considerable expense, the work appears to be done in a substantial manner, and modern style ; combining strength, neatness, and durability.

Considerable painting has been done since my last visit, and the Institution presents a most creditable appearance throughout.

I made an Inspection of the House of Providence on the 31st of October.

On that day there were registered the names of 115 adult males, and 202 adult females, as residents in the Institution, together with 137 youths under 12 years.

Of the above number adults, 70 were registered and duly certified to by the attending physicians as incurable, under the regulations specified for the guidance of the Institution authorities. The remaining number of adult males and females were distributed over the several wards of the House, all of whom, either from old age, or infirmities, or ailments of some kind or other, appeared to be fit subjects for the care of such a home.

The children of school age were in the class-room, and were reported to be making fair progress under their instructors. They were all neatly and cleanly clad, and had a healthy and bright appearance.

I found the records properly kept, and the establishment throughout in good order.

HOME FOR INCURABLES, TORONTO.

Full particulars of the operations of this institution will be found in the annexed summaries:—

Movements of Inmates.

In residence, 1st October, 1888	79	
Admitted	51	
Total number of inmates		130
Discharged	12	
Died	24	
In residence 30th September, 1889	94	
		130

Places admitted from.

From City of Toronto	109	
From the County of York and other counties	21	
		130

Sex.

Male	66	
Female	64	
		130

Nationalities.

Canadian	32	
English	49	
Irish	30	
Scotch	11	
United States	4	
Other countries	4	
		130

Religious Denominations.

Protestant	123	
Roman Catholic	4	
Other religions	3	
		130

Receipts.

From the Province of Ontario	$3,940 20
From the City of Toronto	1,250 00
From other municipalities	.....
Payments from inmates	3,060 36
Subscriptions and donations	5,151 25
Other sources	247 93
	$13,649 74

Expenditure.

Food of all kinds	$4,743 93
Clothing and furnishings	303 60
Fuel, light, and cleaning	1,850 56
Salaries and wages	3,116 75
Repairs	390 55
Other expenses	2,555 73
	$12,959 12

Government Aid for 1890.

Allowance for 32,678 days at 10 cents per day	$3,267 80
Supplementary grant, 5 cents per day	1,633 90
Total	$4,901 70

INSPECTIONS.

Copies of the reports made by me to the Governments are annexed:—

I visited the Home for Incurables, Toronto, on the 3rd of May, and found 101 patients being cared for, distributed over the several wards of the Institution. This is an increased population compared with what has ordinarily been the number in charge. The increase is due to the enlarged accommodation afforded by the new addition built and furnished during the past two years.

I found the premises in its usual good condition. No material change was noticeable in regard to its operations, since the date of my last visit.

I made an inspection of this Institution on the 20th September, and saw the 94 patients on that day under the care of the Institution.

There were 48 males and 46 females in the several wards of the Institution all of whom appeared to be receiving the kindest attention and care.

I found the routine operations of the Home, since its enlargement, being carried on satisfactorily. At the commencement of the current year from the 1st October, 1888, 78 were in residence, and 50 have since been admitted, 23 deaths are recorded during the year, and 11 have been discharged either improved or given over to the custody of their friends.

AGED WOMEN'S HOME, TORONTO.

Full particulars of the operations of this institution will be found in the annexed summaries:—

Movements of Inmates.

In residence, 1st October, 1888	15	
Admitted	5	
Total number of inmates		20
Discharged	3	
Died	1	
In residence, 30th September, 1889	16	
		20

Religious Denominations.

Protestant	20	
		20

Nationalities.

Canadian	5	
English	7	
Irish	8	
		20

Places admitted from.

City of Toronto	19	
County of York	1	
		20

The receipts and expenditures of this Home are included with those of the Industrial Refuge.

Government Aid for 1890.

Allowance for 5,875 days at 5 cents	$293 75
Supplementary aid at 2 cents per day	117 50
Total	$411 25

INSPECTION.

A copy of the report made by me to the Government is annexed :—

I made an inspection of the Aged Womens' Home, Toronto, on the 29th day of July. I found that there were 17 inmates being cared for, all of whom were proper subjects for the care of such an Institution.

The Home was in good order, and the alterations recently made, have increased the accommodation and otherwise made the Institution better adapted for the work.

I found that no proper record or register of the residents had been made for a month or two, and gave instructions to attend to this necessary matter strictly in the future.

ST. JOHN'S HOSPITAL, TORONTO.

Full particulars of the operations of this Institution will be found in the annexed summaries:—

Movements of Inmates.

In residence, 1st October, 1888	5	
Admitted	139	
Total number of inmates		144
Discharged	119	
Died	4	
In residence, 30th September, 1889	21	
		144

Places admitted From.

City of Toronto	75	
County of York and other Counties	5	
Other places	64	
		144

Sex.

Male	..	
Female	144	
		144

Religious Denominations.

Protestant	131	
Roman Catholic	13	
		144

Nationalities.

Canadian	72	
English	35	
Irish	12	
Scotch	16	
Other countries	9	
		144

Receipts.

From the Government of Ontario	$506 70
" City of Toronto	400 00
" Inmates	2,319 25
" Subscriptions	1,867 30
	$5,093 25

Expenditures.

Food of all kinds	$1,229 71
Clothing, furnishings, etc	1,154 15
Fuel	379 85
Salaries and wages	528 65
Ordinary repairs	28 96
Other expenses	1,536 35
	$4,857 67

Government Aid for 1890.

Allowance for 4,656 days, at 10 cent per day	$465 60
Supplementary Grant at 5 cents	232 80
	$698 40

INSPECTIONS.

Copies of the reports made by me to the Government are annexed:

I made an inspection of the St. John's Hospital, Toronto, on the 20th day of May. The Institution is now permanently located on Major St., and has been occupied since the first of April last: transferring 8 patients then under treatment, from the old site to that of the new building. On the day of my visit there were 17 female patients, all of whom, with one exception, may require surgical treatment. No admissions are, if possible made, unless they are cases likely to develop into, and require surgical operation.

Since the first of October last 84 patients have been admitted, and 3 deaths are recorded as having occurred during that time.

I found the new premises especially fitted up, and well adapted in every respect for the work contemplated. There are in the Hospital proper, 9 single and 3 double rooms, and a large ward which will contain 12 beds; these together with the operating rooms are well ventilated and lighted. The Institution in every respect commends itself, both from a sanitary point of view, and situation, as a central position.

I made a second inspection of the St. John's Hospital, Toronto, for the current year, on the 16th September, and saw all the patients there under treatment. Their number was sixteen, ten of whom were strictly surgical cases.

134 patients have been cared for during the lapsed portion of the current year, the majority of whom have been of the above named class, and their treatment appears to have been followed with marked success,—only four of the entire number having left the Institution without benefit.

All the surroundings, appliances and accommodation are well adapted to the work of the Hospital and the well being of the sufferers.

The department fitted up more especially for the accommodation of the nurses and the ladies in charge is also calculated to secure the best results for the patients under their charge.

I found the Institution in all its parts in excellent condition, and there was ample evidence of the great interest taken in its management.

THE CONVALESCENT HOME, TORONTO.

Full particulars of the operations of this institution will be found in the annexed summaries:—

Movements of Inmates.

In residence, 1st October, 1888	11	
Admitted	202	
Total number of inmates		213
Discharged	199	
Died	3	
In residence, 30th September, 1889	11	
		213

Places admitted from.

City of Toronto	211	
County of York	2	
Other places	..	
		213

Sex.

Male	91	
Female	122	
		213

Religious Denominations.

Protestant	119	
Roman Catholic	33	
Other denominations	1	
		213

Nationalities.

Canadian	52	
English	96	
Irish	40	
Scotch	10	
Other Countries	15	
		213

Receipts.

From the Province of Ontario	$ 443 70
From the City of Toronto	1,240 60
Payment from inmates	664 40
Subscriptions and donations	1,208 79
Income	26 50
	$3,583 99

Expenditures.

Food of all kinds	$1,361 80
Clothing, furniture and furnishings	108 93
Fuel	354 40
Salaries and wages	555 32
Repairs, ordinary	149 08
Other expenses, including rent and taxes	1,218 29
	$2,747 82

Government Aid for 1890.

Allowance for 5,450 days, at 10 cents	$545 00
Supplementary allowance at 5 cents	272 50
	$817 50

INSPECTION.

A copy of my report to the Government is annexed :—

Instructions were given by me to Mr. Hayes to inspect this Home. A copy of his report is annexed :—

"As directed by you, I made an inspection of the Convalescent Home, Toronto, on the 4th January. An examination of the register showed that since the 30th September last, 64 persons had been in residence, of whom two had died and 55 had been discharged, leaving seven in the Home on the day of my visit. These persons, five females and two males, I saw. As many as twenty-four persons have been in residence at one time. The books are not very well kept, and the form of register is not a good one. I would suggest that when the book now in use is filled up, the managers should apply to this department for a copy of the form commonly used.

"The house was clean and in good order. Every part of it was visited. The general dormitory for free male patients had ten beds in it, which seemed to me to be too many, as some of the beds were nearly touching each other. From the size of the room one would imagine that with ten persons sleeping in it, the atmosphere would become very impure.

"If the male inmates are to be allowed to smoke, it would be well to put a partition across the hall leading to the men's sitting-room, with a view to preventing the smell of smoke from pervading the whole of the lower flat. At the time of my visit, the smell of tobacco was strong, and, no doubt, would be very unpleasant to some persons just recovering from illness.

"I saw no appliances for putting out a fire should one unfortunately occur. As there is no general water supply throughout the house and the building is beyond the reach of the city fire brigade, the managers would do well to have some appliances provided. At the very least buckets filled with water should be kept in certain stated places.

"The water supply is not good. There is a pump in the basement, and the water has to be carried from there to the different parts of the house. A windmill pump, with a large tank, would help to meet the difficulty, when the managers are in a position to make any expenditures in that direction."

CHURCH HOME FOR THE AGED.

Full particulars of the operations of this Institution will be found in the annexed summaries :—

Movements of Inmates.

In residence, 1st October, 1888	12	
Admitted	11	
Total number of inmates	——	23
Discharged	10	
Died	1	
In residence, 30th September, 1889	12	
	——	23

Places Admitted From.

City of Toronto	19	
County of Wentworth	1	
Other counties of Ontario	3	
		23

Sex.

Male	6	
Female	17	
		23

Religious Denominations.

Protestant	23	
		23

Nationalities.

Canadian	..	
English	9	
Irish	10	
Scotch	4	
		23

Receipts.

From the City of Toronto	$292 53
From payments made by inmates	536 00
Subscriptions, donations, etc.	784 91
	$1,613 41

Expenditures.

Food of all kinds	$473 62
Clothing and furnishings	43 59
Fuel, light, cleaning, etc.	161 13
Salaries and wages	190 20
Repairs	50 95
Other expenses	470 92
	$1,390 41

Government Aid for 1890.

Allowance for 4,156 days, at 5 cents per day	$207 80
Supplementary grant, at 2 cents	83 12
Total	$290 92

INSPECTIONS.

Copies of my reports to the Government are annexed:—

I visited the Church Home, Toronto, on the 26th of April, and found that there were twelve old people under charge, five males and seven females.

The premises were neatly kept, and the persons provided for appeared to be receiving the best of treatment and consideration in regard to their physicial well-being.

I made an inspection of the Church Home for the Aged, Toronto, on the 16th September, when there were twelve persons being cared for.

The Home was clean and tidy, and the old people were evidently made as comfortable as possible. No change worthy of note has taken place in the condition of the institution since the date of my last report.

HOUSE OF REFUGE, HAMILTON.

Full particulars of the operations of this institution will be found in the annexed summaries:—

Movements of Inmates.

In residence, 1st October, 1888	106	
Admitted	96	
Total number of inmates		202
Discharged	91	
Died	10	
In residence, 30th September, 1889	101	
		202

Places Admitted From.

City of Hamilton	188	
County of Wentworth and other counties	8	
Other places	6	
		202

Sex.

Male	147	
Female	55	
		202

Religious Denominations.

Protestant	128	
Roman Catholic	74	
		202

Nationalities.

Canadian	15	
English	44	
Irish	102	
Scotch	26	
Other countries	15	
		202

Receipts.

From the Government of Ontario	$2,550 18
" City of Hamilton	4,524 52
" Municipalities	298 75
" Inmates	386 20
	$7,759 65

Expenditures.

Food of all kinds	$4,721 83
Clothing, furnishings, etc.	372 46
Fuel	678 92
Salaries and wages	1,054 04
Ordinary repairs	199 37
Other expenses	733 03
	$7,759 65

Government aid for 1890.

Allowance for 38,729 days, at 5 cents	$1,936 45
Supplementary aid, at 2 cents per day	774 58
Total	$2,711 03

INSPECTIONS.

A copy of the report made by Dr. O'Reilly to the Government is annexed :—

I made an inspection of the House of Refuge, Hamilton, on the 22nd of May. There were resident on the above date 69 men, 32 women and 2 children. Total 103. The house was found to be in its usual condition and well kept, as such a dilapidated old place could be expected. Inasmuch as the city does only a little more than one-half of the cost of maintaining this institution, it would only seem reasonable that it should furnish the building properly for the accommodation of these poor people.

The number of people who are maintained in this institution renders it impossible for them to be kept in the manner they ought to be. There is no such thing as a dining-room, or a table off which the patients can take their meals, the prisoners in the gaol are accorded this latter privilege. It seems hard, therefore, that people whose only crime is their poverty, should be forced to live in the way these do.

HOME FOR AGED WOMEN, HAMILTON.

Full particulars of the operations of this institution will be found in the annexed summaries:—

Movements of Inmates.

In residence, 1st October, 1888	22	
Admitted	2	
Total number of inmates		24
Number of deaths	1	
In residence, 30th September, 1889	23	
		24

Places admitted from.

City of Hamilton	24	
		24

Religious Denomination.

Protestant	24	
		24

Nationalities.

Canadian	3	
English	9	
Irish	6	
Scotch	6	
		24

The receipts and expenditures of this institution are included with those of the Protestant Orphans' Home, Hamilton, and therefore details cannot be given here.

Government aid for 1890.

Allowance for 8,014 days, at 5 cents	$400 70
Supplementary aid, at 2 cents	160 28
Total	$560 98

INSPECTIONS.

Copies of the reports made to the Government by Dr. O'Reilly are annexed:—

I made an inspection of the Home for Aged Women, Hamilton, on the 21st May, and found 22 women in residence.

Everything about the institution was in its usual condition of good order.

I made an inspection of the Home for Aged Women, Hamilton, on the 6th December.

Twenty-four aged people are provided with a comfortable and pleasant home in this institution.

The home was found to be in its usual excellent condition.

HOUSE OF INDUSTRY, KINGSTON.

Full particulars of the operations of this institution will be found in the annexed summaries:—

Movements of Inmates,

In residence, 1st October, 1888	44	
Admitted	99	
Total number of inmates		143
Discharged	95	
Died	5	
In residence, 30th September, 1889	43	
		143

Places admitted from.

City of Kingston	63	
County of Frontenac	9	
Other counties of Ontario	63	
Other Places	8	
	——	143

Sex.

Male	116	
Female	27	
	——	143

Religious Denominations.

Protestant	95	
Roman Catholic	48	
	——	143

Nationalities.

Canadian	20	
English	30	
Irish	74	
Scotch	14	
Other countries	5	
	——	143

Receipts.

From the Province of Ontario	$1,170 26	
From the City of Kingston	825 00	
Payment from inmates	409 00	
Subscriptions and donations	469 00	
	$2,873 26	

Expenditures.

Food of all kinds	$1,506 77	
Clothing, furniture and furnishings	187 29	
Fuel	402 44	
Salaries and wages	420 00	
Repairs, ordinary	135 95	
Other expenses, including rent and taxes	317 30	
	$2,969 75	

Government Aid for 1890.

Allowance for 18,579 days, at 5 cents	$928 95	
Supplementary aid, at 2 cents per day	371 58	
	$1,300 53	

INSPECTIONS.

Copies of my reports to the Government are annexed:—

I made an inspection of the House of Industry, Kingston, on the 10th of May, and found that there were 39 inmates being cared for, 23 males and 16 females. This is a much reduced number compared with those provided for during the winter months, as many as 70 have been permanently resident during the severe weather.

I found the premises in fair order, and the inmates properly cared for; many of them are very helpless and old, and the difficulty of attending such a class is very considerable and requires the exercise of judgment. The books were found to be in proper order.

I made a second visit of inspection to this institution on the 27th September. There were 43 persons being cared for on that day, 28 males and 15 females.

The greater number of the residents were very old and infirm, and required the care afforded by such an institution. Marked improvements have been made lately, adding much to the comfort and appearance of the institution internally. The principal halls have been neatly and chastily papered, the floors throughout the entire building have been painted, and the walls have been kalsomined or whitened. I was informed that new bedding would be supplied throughout; when this is done the home will be in an excellent condition for the class for which it is provided. I found the books properly and neatly kept.

HOUSE OF PROVIDENCE, KINGSTON.

Full particulars of the operations of this institution will be found in the annexed summaries:—

Movements of Inmates.

In residence, 1st October, 1888	67	
Admitted	84	
Total number of inmates		151
Discharged	54	
Died	26	
In residence, 30th September, 1889	71	
		151

Places admitted from.

City of Kingston	24	
County of Frontenac	14	
Other counties and places	113	
		151

Sex.

Male	75	
Female	76	
		151

Religious Denominations.

Protestant	75	
Roman Catholic	76	
		151

Nationalities.

Canadian	39	
English	15	
Irish	71	
Scotch	11	
Other countries	15	
		151

Receipts.

From the Province of Ontario	$1,737 50
From Municipalities	125 00
Income from property	37 40
Payment from inmates	835 97
Subscriptions and donations	3,204 26
Other sources	2,501 00
	$8,441 13

Expenditure.

Food of all kinds	$3,291 83
Clothing and furnishing	1,569 27
Salaries and wages	50 00
Fuel, light and cleaning	726 05
Repairs, ordinary and extraordinary	748 67
Other expenses	5,595 55
	$11,981 37

Government Aid for 1890.

Allowance for 30,975 days, at 5 cents	$1,548 75
Supplementary aid at 2 cents per day	619 50
Total	$2,168 25

INSPECTIONS.

Copies of the reports made by me to the Government are annexed :—

I made my first statutory inspection of the House of Providence, Kingston, on the 10th May. On that day there were 34 inmates provided for, all of whom appeared to be properly looked after.

The Home on this occasion, as is usually found was scrupulously clean from basement to attic. The old people able to move about were neatly and cleanly clad, those confined to their beds were most comfortable in all their surroundings.

Extensive improvements are in progress on the premises, with a view of providing accommodation for some of the old and more mentally infirm, in an isolated building, within the range and supervision of the authorities.

A further extension of the south wing of the building is being fitted up for re-opening in connection with the Institution, all of which is being commendably arranged with a view to the comfort of the inmates.

I made a second statutory inspection of this Institution for the current year on the 27th September. 95 persons were being cared for on the day of my visit, 38 adult males, 35 adult females, and 22 children.

My inspection extended to all the different apartments of the Institutions, all of which I found in a proper state of order and cleanliness.

The old people were evidently well cared for and the children were equally comfortable.

Since the date of my last visit, the building refitted for the occupation of the children, has been completed, and I saw them in the school room under instruction. The entire plumbing throughout the Institution has been renewed and the baths, etc., with all the modern improvements, are neatly and substantially fitted. I found the records properly kept, and the routine work of the Institution was being accomplished with care and good judgment.

PROTESTANT HOME FOR THE AGED AND FRIENDLESS, LONDON.

Full particulars of the operations of this institution will be found in the annexed summaries:—

Movements of Inmates.

In residence, 1st October, 1888	5	
Admitted	2	
Total number of inmates		7
Discharged	3	
Died	....	
In residence 30th September, 1889.	4	
		7

Places admitted from.

City of London	7	
		7

Sex.

Male	1	
Female	6	
		7

Religious Denominations.

Protestant	7	
		7

Nationalities.

Canadian	3	
English	2	
Irish	1	
Other countries	1	
	——	7

Receipts.

From the Province of Ontario	$554 03
From the City of London	500 00
From inmates in part payment of board	864 25
Income from property	997 50
Subscriptions, donations, etc.	1,318 87
From other sources	2 81
	$4,237 46

Expenditures.

Food of all kinds	$1,546 18
Salaries and wages	933 66
Other expenses	1,627 29
	$4,107 07

There is an orphanage connected with this Home, and the accounts of both are included in these statements.

Government aid for 1890.

Allowance for 2,266 days, at 5 cents	$113 30
Supplementary aid, at 2 cents per day	45 32
Total	$158 62

ROMAN CATHOLIC HOUSE OF REFUGE, LONDON.

Full particulars of the operations of this Institution will be found in the annexed summaries :—

Movements of Inmates.

In residence, 1st October, 1888	47	
Admitted	31	
Total number of inmates	——	78
Discharged	23	
Died	3	
In residence, 1st September, 1889	52	
	——	78

Places admitted from.

City of London	44	
County of Middlesex	6	
Other counties of Ontario	28	
		78

Sex.

Male	30	
Female	48	
		78

Religious Denominations.

Protestant	1	
Roman Catholic	77	
		78

Nationalities.

Canadian	17	
English	3	
Irish	55	
Other countries	3	
		78

Receipts.

From the Province of Ontario	$1,643 20
From the City of London	415 00
Payment from inmates	1,428 75
Subscriptions and donations	15,457 62
	$18,944 57

Expenditures.

Food of all kinds	$6,477 30
Clothing, furniture and furnishings	2,065 05
Fuel	1,219 40
Salaries and wages	238 70
Repairs, ordinary	535 55
Other expenses, including rent and taxes	8,447 33
	$18,983 33

Government aid for 1890.

Allowance for 17,797 days at 5 cents	$889 85
Supplementary aid, at 2 cents per day	355 94
Total	$1,245 79

INSPECTION.

A copy of the report made to the Government by Dr. O'Reilly is annexed:

I made an inspection of the Roman Catholic House of Refuge, London, on the 1st November.

On that date the inmates numbered 53—18 males and 35 females. I found the house in its excellent condition.

An entirely new laundry has just been completed and it has been fitted up by the Troy Laundry Machinery Co. with every appliance that can be desired. This laundry will add greatly to the efficiency of the institution.

HOME FOR AGED WOMEN, LONDON.

Full particulars of the operations of this institution will be found in the annexed summaries:—

Movements of Inmates.

In residence, 1st October, 1888	12	
Admitted	6	
Total number of inmates	——	18
Discharged	2	
Died	1	
In residence, 30th September, 1889	15	
	——	18

Places admitted from.

City of London	13	
County of Middlesex	1	
Other counties in Ontario	4	
	——	18

Sex.

Male	..	
Female	18	
	——	18

Religious Denominations.

Protestant	18	
Roman Catholic	..	
	——	18

Nationalities.

Canadian	...	
English	11	
Irish	7	
	——	18

Receipts.

From the Government of Ontario	$311 85
" City of London	468 00
From payments made by inmates	382 50
Subscriptions, donations, etc	300 36
	$1,462 71

Expenditures.

Food of all kinds	$603 32
Clothing and furnishings	52 11
Fuel, light, cleaning, etc	149 32
Salaries and wages	289 65
Repairs, ordinary and extraordinary	46 75
Other expenses	383 25
	$1,524 40

Government Aid for 1890.

Allowance for 5,314 days, at 5 cents per day	$265 70
Supplementary grant, at 2 cents	106 28
Total	$371 98

INSPECTION.

A copy of the report made to the Government by Dr. O'Reilly is annexed: I visited the Home for Aged Women, London, on September 21st, when it contained fifteen aged people. The house was in good order and in every respect a comfortable home for those provided for. There were no complaints from any of them.

ST. PATRICK'S REFUGE, OTTAWA.

Full particulars of the operations of this institution are shown in the annexed summaries:—

Movements of Inmates.

In residence, 1st October, 1888	108	
Admitted	89	
Total number of inmates		197
Discharged	78	
Died	9	
In residence, 30th September, 1889	110	
		197

Sex.

Male	96	
Female	101	
		197

Religious Denominations.

Protestant	....	
Roman Catholic	197	
		197

Nationalities.

Canadian	27	
English	37	
Irish	130	
Scotch	1	
Other Countries	2	
	——	197

Places admitted from.

City of Ottawa	97	
County of Carleton and other counties	53	
Emigrants	47	
	——	197

The receipts and expenditure of this charity are included with those of the Orphanage branch.

Government Aid for 1890.

Allowance for 40,830 days, at 5 cents	$2,041 50
Supplementary aid, at 2 cents per day	816 60
Total	$2,858 10

INSPECTIONS.

A copy of the report made by me to the Government upon this Refuge is annexed:—

I made an Inspection of the St. Patrick's Refuge, Ottawa, on the 9th of April, and found 50 adult males, and 59 adult females were being cared for as inmates of the Institution.

I found the premises in their usual state of order and cleanliness.

On the male side of the Institution all the walls had been painted, also many of the floors and the walls kalsomined since the date of my last visit; and the Institution throughout presented a very tidy and comfortable appearance.

The inmates were all of that class requiring the shelter and protection of such an Institution for their comfort and maintenance.

I instructed Mr. Nicholson, to make an Inspection of this Refuge. A copy of his report to me is appended:—

As instructed by you, I made an Inspection of the St. Patrick's House of Refuge, Ottawa.

There were in residence 43 adult male, and 65 adult female inmates, the most of whom were old and infirm.

The Institution was cleanly and neat throughout. The drains from the building were undergoing repairs.

ST. CHARLES' HOSPICE, OTTAWA.

Full particulars of the operations of this institution will be found in the annexed summaries:—

Movements of Inmates.

In residence 1st October, 1888	75	
Admitted	38	
Total number of inmates		113
Discharged	20	
Died	18	
In residence 30th September, 1889	75	
		113

Sex.

Male	47	
Female	66	
		113

Religious Denominations.

Protestant	....	
Roman Catholic	113	
		113

Nationalities.

Canadian	101	
English	11	
Other countries	1	
		113

Places admitted from.

City of Ottawa	67	
County of Carleton	27	
Other counties	19	
		113

Receipts.

From the Government of Ontario	$2,036 65
From the County of Carleton	.....
Income	.....
From payments made by inmates	960 70
Subscriptions, donations, etc.	958 81
	$3,956 16

Expenditures.

Food of all kinds	$1,961 22
Clothing and furnishings	111 14
Fuel, light, cleaning, etc.	414 96
Salaries and wages	211 60
Repairs ordinary and extraordinary	68 80
Other expenses	1,896 64
	$3,664 36

Government aid for 1890.

Allowance for 27,153 days, at 5 cents per day	$1,357 65
Supplementary grant, at 2 cents	543 06
Total	$1,900 71

INSPECTIONS.

A copy of the report made by me to the Government upon this Home is annexed:—

I made an Inspection of the St. Charles Hospice, Ottawa, on the 9th of April. On that day there were 74 inmates in residence, 28 adult males, and 46 adult females.

I found the premises in good condition; the inmates appeared to be well cared for; and all their wants properly supplied.

I instructed Mr. Nicholson, to make an Inspection of this Refuge, A copy of his report is appended:—

As directed by you, I made a visit to the St. Charles Hospice, Ottawa, on the 29th July, when there were 75 inmates, namely, 28 males, and 47 females.

The Institution was in very good order. The books were examined and found to be correct.

THE HOME FOR THE AGED, OTTAWA.

Full particulars of the operations of this institution will be found in the annexed summaries:—

Movements of Inmates.

In residence, 1st October, 1888	18	
Admitted	14	
Total number of inmates		32
Discharged	7	
Died	2	
In residence, 30th September, 1889	23	
		32

Sex.

Male	31	
Female	1	
		32

Religious Denominations.

Protestant	32	
		32

Nationalties.

Canadian	2	
English	14	
Other countries	16	
		32

Places admitted from.

City of Ottawa	23	
County of Carleton	9	
Other counties	..	
		32

Receipts.

From the Government of Ontario	$403 40
" County of Carleton	250 00
Income	.....
From payments made by inmates	411 64
Subscriptions, donations, etc.	1,024·65
	$2,089 69

Expenditure.

Food of all kinds	$763 53
Clothing and furnishings	7 35
Fuel, light, cleaning, etc.	14 50
Salaries and wages	611 40
Repairs, ordinary and extraordinary	15 82
Other expenses	374 45
	$1,787 05

Government Aid for the Year 1890.

Allowance for 8,248 day at 5 cents per day	$412 40
Supplementary aid at 2 cents	164 96
Totsl	$577 36

INSPECTIONS.

A copy of the report made by me to the Government is annexed :—

I visited the Protestant Home for the Aged, Ottawa, on the 10th of April, and saw twenty-five old people there being cared for, all of whom were of that class who might properly be cared for in such an institution. Many evidences appeared showing the care and attention to the comfort and wants of the inmates.

The apartments were all in excellent order, perfectly clean and neat, and the old people were surrounded with all necessary comforts, and in this regard the general management of the Home showed care in all the departments. The food was also well prepared and neatly served—the books were correctly kept.

I instructed Mr. Nicholson to make an inspection of this Home, a copy of his report to me is appended:—

I have the honor to report that, as instructed by you, I visited the Protestant Home for the Aged, Ottawa, on the 29th July.

The house is very neatly and comfortably furnished, and the bedding and entire surroundings scrupulously clean.

There were twenty inmates on the day of my visit—all males.

The books were examined and found to be well and neatly kept.

REFUGE BRANCH, ORPHANS' HOME, OTTAWA.

Full particulars of the operations of this institution will be found in the annexed summaries:—

Movements of Inmates.

In residence, 1st October, 1888	14	
Admitted	12	
Total number of inmates		26
Discharged	10	
Died	2	
In residence, 1st September, 1889	14	
		26

Places admitted from.

City of Ottawa	16	
County of Carleton	5	
Other counties of Ontario	5	
		26

Sex.

Female	26	
		26

Religious Denominations.

Protestant	26	
		26

Nationalties.

Canadian	1	
English	6	
Irish	17	
Other countries	2	
		26

The receipts and expenditures of this Charity are shown in the report upon the Orphans' Home, Ottawa.

Government Aid for 1890.

Allowance for 5,400 days, at 5 cents	$270 00
Supplementary aid, at 2 cents per day	108 00
Total	$378 00

INSPECTIONS.

A copy of the report made by me to the Government is annexed :—

I visited the Orphans' Home Refuge Branch, Ottawa, on the 9th of April and made the first statutory inspection for the current year.

There were fifteen old women being cared for, all of whom appeared to be objects requiring the care of such an institution.

The neatness and order in which the institution was found is very commendable, the appartments throughout being in excellent condition, and they are in every respect most suitable for the purpose for which they are set apart.

Instructions were given by me to Mr. Nicholson to inspect this Home, a copy of his report is annexed :—

As instructed by you I made an inspection of the Refuge Branch of the Orphans' Home, Ottawa, on the 26th July, and saw the fourteen old people who are its inmates. Their comfort appears to be well looked after.

This branch of the Home is completely shut off from the Orphanage. Everything in connection with it was found to be in excellent condition.

HOUSE OF PROVIDENCE, GUELPH.

Full particulars of the operations of this institution will be found in the annexed summaries :—

Movements of Inmates.

In residence 1st October, 1888	40	
Admitted	78	
Total number of inmates		118
Discharged	76	
Died	1	
In residence 30th September, 1889	41	
		118

Places admitted from.

From the City of Guelph	32	
From the County of Wellington and other counties	61	
Foreigners, etc.	25	
		118

Sex.

Male	50	
Female	68	
		118

Religious Denominations.

Protestant	5	
Roman Catholic	113	
		118

Nationalites.

Canadian	30	
English	2	
Irish	75	
Other countries	11	
		118

Receipts.

Province of Ontario	$1,064 56
Municipalities	136 00
From inmates in part payment for board	300 00
Income from property	300 00
From all other sources	795 57
	$2,596 13

Expenditures.

Food of all kinds	$1,380 22
Clothing and furnishings	517 96
Fuel, light and cleaning	277 00
Salaries aud wages	114 50
Ordinary repairs	50 71
Other expenses	744 46
	$3,084 85

Government Aid for the year 1890.

Allowance for 14,513 days at 5 cents per day	$725 65
Supplementary aid at 2 cents	290 26
	$1,015 91

INSPECTIONS.

Copies of the report made to the Government by Dr. O'Reilly are annexed:—

I inspected the House of Providence, Guelph, on the 29th May.
The inmates numbered 42, namely: 20 males, 21 females, and 1 child.
The general condition of the institution was good as usual.

I visited the House of Providence, Guelph, on the 7th October, and found therein 40 inmates, 23 males, 16 females, and 1 youth.

Cleanliness and good order prevailed, and it only requires a more efficient system of heating other than by stoves, and a good water supply to place this institution in first-class condition. These improvements will no doubt come in good time.

PROTESTANT HOME ST. CATHARINES (REFUGE BRANCH).

Full particulars of the operations of the Refuge Branch of this Institution will be found in the annexed summaries:—

Movements of Inmates.

In residence 1st October, 1888	3	
Admitted	2	
Total number of inmates		5
Discharged	2	
In residence 30th September, 1889	3	
		5

Places admitted from.

City of St. Catharines	5	
		5

Sex.

Male	2	
Female	3	
		5

Religious Denominations.

Protestant	5	
		5

Nationalities.

Canadian	2	
Irish	3	
		5

The receipts and expenditures of this Branch of the Charity are included in the accounts of the Orphanage.

Government Aid for 1890.

Allowance for 1,111 days at 5 cents per day	$55 55
Supplementary aid at 2 cents	22 22
Total	$77 77

The report upon the inspection of this Home will be found in that portion of the report relating to Orphanages.

THE THOMAS WILLIAMS HOME.

Full particulars of the operations of this institution will be found in the annexed summaries :—

Movements of Inmates.

In residence 1st October, 1888	18	
Admitted	12	
Total number of inmates		30
Discharged	13	
Died	..	
In residence 30th September, 1889	17	
		30

Places admitted from.

City of St. Thomas	30	
		30

Sex.

Male	13	
Female	17	
		30

Religious Denominations.

Protestant	24	
Roman Catholic	6	
		30

Nationalities.

Canadian	6	
English	11	
Irish	10	
Other countries	3	
		30

Receipts.

From the Province of Ontario	$471 83
From the City of St. Thomas	671 85
From payments by inmates	102 40
From other sources	108 85
	$1,354 93

Expenditures.

Food of all kinds	$652 08
Clothing and furnishings	28 57
Fuel, light, cleaning, etc.	174 87
Salaries and wages	314 00
Other expenses	116 41
	$1,285 93

Government Aid for 1890.

Allowance for 6,999 days' stay at 5 cents per day	$349 95
Supplementary aid at 2 cents	139 98
	$489 93

INSPECTION.

A copy of the report made by Dr. O'Reilly to the Government is annexed:—

I made an inspection of the Thomas Williams Home, St. Thomas, on the 20th November.

There were in residence on that date 5 men and 9 women.

The House was as usual in excellent order.

HOUSE OF PROVIDENCE, DUNDAS.

Full particulars of the operations of this institution will be found in the annexed summaries:

Movements of Inmates.

In residence, 1st October, 1888	89	
Admitted	50	
Total number of inmates		139
Discharged	45	
Died	12	
In residence, 30th September, 1889	82	
		139

Places admitted from.

City of Hamilton	45	
County of Wentworth and other counties	42	
Other places	52	
		139

Sex.

Male	51	
Female	88	
		139

Religious Denominations.

Protestant	5	
Roman Catholic	134	
		139

Nationalities.

Canadian	35	
English	11	
Irish	88	
Scotch	5	
Other countries	..	
	——	139

Receipts.

From the Province of Ontario	$2,223 90
From the City of Hamilton	200 00
From the County of Wentworth	300 00
From other municipalities	164 00
From inmates	766 00
Income	920 00
Subscriptions and donations of private individuals	200 00
Other sources	2,673 90
	$7,447 80

Expenditures.

Food of all kinds	$5,238 34
Clothing, furniture and furnishings	856 21
Fuel, light and cleaning	999 00
Other expenditures	2,672 76
	$9,766 31

Government Aid for 1890.

Allowance for 32,745 days' stay, at 5 cents	$1,637 25
Supplementary aid, at 2 cents per day	654 90
Total	$2,292 15

INSPECTIONS.

A copy of the report made to the Government by Dr. O'Reilly is annexed:—

I visited the House of Providence, Dundas, on the 30th November. There were then 178 inmates—32 males and 57 females, and 89 children.

The House was found to be in its usual excellent condition in all respects. A new laundry has recently been completed with machinery supplied by the Troy Laundry Machinery Company.

Not having been able to come to terms with the town for a supply of water, the management is now taking steps to provide this for themselves. When this is accomplished there will be nothing left to be desired in this department of the institution.

THE HOME FOR THE FRIENDLESS, CHATHAM.

Full particulars of the operations of this institution will be found in the annexed summaries:—

Movements of Inmates.

In residence, 1st October, 1888	14	
Admitted	13	
Total number of inmates		27
Discharged	7	
Died	4	
In residence, 30th September, 1889	16	
		27

Places admitted from.

Town of Chatham	25	
County of Kent	2	
Emigrants, foreigners, etc	..	
		27

Sex.

Male	16	
Female	11	
		27

Religious Denominations.

Protestant	23	
Roman Catholic	4	
		27

Nationalitites.

Canadian	7	
English	7	
Irish	3	
Scotch	2	
Other countries	8	
		27

Receipts.

From the Province of Ontario	$334 60
From the Town of Chatham	2,300 00
From other sources	340 59
	$2,975 19

Expenditures.

Food of all kinds	698 94
Clothing and furnishing	129 50
Fuel, light, cleaning, etc	567 75
Salaries and wages	458 11
Other expenses	349 01
	$2,203 31

Government Aid for 1890.

Allowance for 5,407 days' stay, at 5 cents per day	$270 35
Supplementary aid, at 2 cents	108 14
Total	$378 49

INSPECTIONS.

A copy of the report made to the Government by Dr. O'Reilly is annexed:—

I inspected the Home for the Friendless, Chatham, on the 14th November.

There were 15 inmates under lodgment in this Home on the day of my visit, 9 males and 6 females.

The institution was clean and in good condition.

THE WIDOWS' HOME, BRANTFORD.

Full particulars of the operations of this institution will be found in the annexed summaries:—

Movements of Inmates.

In residence, 1st October, 1888	10	
Admitted	7	
Total number of inmates		17
Discharged	6	
Died	2	
In residence, 30th September, 1889	9	
		17

Places admitted from.

City of Brantford	15	
Province of Ontario	2	
		17

Sex.

Female	17	
		17

Religious Denominations.

Protestant	17	
		17

Nationalities.

Canadian	4	
English	7	
Irish	3	
Other countries	3	
		17

Receipts.

From the Province of Ontario	$314 09
From Inmates	86 79
From other sources	485 64
	$886 43

Expenditures.

Food of all kinds	$380 87
Clothing and furnishing	46 11
Fuel, light, cleaning, etc.	117 03
Salaries and wages	203 26
Other expenses	173 54
	$920 81

Government aid for 1890.

Allowance for 4,496 days' stay, at 5 cents per day	$224 80
Supplementary aid at 2 cents	89 92
	$314 72

INSPECTIONS.

A copy of the report made to the Government by Dr. O'Reilly is annexed:—

The Widows' Home, Brantford, was inspected by me on the 22nd May, when there were 11 women in residence.

The home is very comfortable, and well kept by the new matron, Miss Huggett. I trust however, that no effort will be spared to have the building heated with hot water, as the number of fires that are necessary under the present arrangement cause a great deal of inconvenience, and the heating is unsatisfactory, and more or less unsanitary. One of the first efforts of the very efficient management of this charity should be to accomplish this improvement.

THE HOME FOR THE FRIENDLESS, BELLEVILLE.

Full particulars of the operations of this institution will be found in the annexed summaries:—

Movements of Inmates.

In residence, 1st October, 1888	9	
Admitted	4	
Total number of inmates		13
Discharged	2	
Died	2	
In residence, 30th September, 1889	9	
		13

Places Admitted From.

From the City of Belleville	10	
From the County of Hastings and other counties	3	
		13

Sex.

Male	5	
Female	8	
		13

Religious Denominations.

Protestant	10	
Roman Catholic	3	
		13

Nationalities.

Canadian	1	
English	5	
Irish	7	
		13

Receipts.

From the Province of Ontario	$238 22
From the City of Belleville	100 00
From inmates	52 00
Subscriptions and donations	89 21
	$479 43

Expenditures.

Food of all kinds	$335 82
Clothing and furnishings	36 36
Fuel, light and cleaning	67 15
Salaries and wages	17 50
Other expenses	21 60
	$478 43

Government Aid for 1890.

Allowance for 4,054 days at 5 cents per day	$202 70
Supplementary aid, 2 cents	81 08
Total	$283 78

INSPECTIONS.

Copies of the reports made by me to the Government upon this Charity are annexed :—

I made an inspection of the Home for the Friendless, Belleville. on the 6th of June, and saw the inmates who were apparently comfortably situated and carefully looked after.

The Home was in good order and in every respect suitable for promoting the comfort of the inmates.

I made an inspection of this institution on the 10th October. Nine old people were being cared for—2 males and 7 females. Their surroundings were comfortable and the apartments neatly and properly kept.

THE PROTESTANT HOME, PETERBOROUGH.

Full particulars of the operations of this institution will be found in the annexed summaries :—

Movement of Inmates.

In residence, 1st October, 1888	17	
Admitted	16	
Total number of inmates		33
Discharged	14	
Died	2	
In residence, 30th September, 1889	17	
		33

Places Admitted From.

From the Town of Peterborough	12	
From the County of Peterborough and other counties	21	
		33

Sex.

Male	18	
Female	15	
		33

Religious Denominations.

Protestant	33	
		33

Nationalities.

Canadian	17	
English	8	
Irish	3	
Scotch	5	
		33

Receipts.

From the Province of Ontario	$402 85
From municipalities for board of inmates	.....
From inmates	338 48
Subscriptions and donations	669 57
	$1,410 90

Expenditures.

Food of all kinds	$670 52
Clothing and furnishings	92 56
Fuel, light and cleaning	163 07
Salaries and wages	168 25
Other expenses	243 24
	$1,337 64

Government Aid for 1890.

Allowance for 6,726 days at 5 cents per day	$336 30
Supplementary aid at 2 cents	134 52
Total	$470 82

INSPECTIONS.

Copies of the reports made by me to the Govrrnment upon this charity are annexed:—

I made an inspection of the Protestant Home, Peterborough, on the 14th June. I found that there were 19 persons being cared for—7 males, 6 females and 6 youths under 12 years of age. The inmates are apparently receiving the best care, and the old people are fit subjects for such an institution.

The premises are well kept and show good management in the routine work. A thorough inspection, however, made it apparent that the heating is defective, especially in the two east dormitory rooms where there are no appliances for heating, and in consequence they are not available for use in winter time.

The cellar or basement would be greatly improved if the floor was concreted, as on the morning of my visit it was close and damp. Although it was in good order, neat and cleanly kept, a close smell was quite noticeable, and can only be remedied by the means suggested.

I instructed Mr. Nicholson to make an inspection of this Home. A copy of his report to me is appended:—

I have the honor to report that, as instructed by you, I visited the Protestant Home, Peterborough, on the 30th July.

The inmates numbered 7 men, 6 women and 8 children. They appeared to be comfortable and well looked after.

The institution throughout was in very good order.

ORPHAN ASYLUMS.

During 1889, as compared with 1888, there was an increase of 254 in the number maintained in the Orphanages, while the deaths decreased from 127 to 88.

The statistics relating to the sex, religious denominations and nationalities of the inmates are given in the following summary:—

Sex.

Male	1,954	
Female	1,752	
		3,706

Religious Denominations.

Protestant	1,914	
Roman Catholic	1,792	
		3,706

Nationalities.

Canadian	2,466	
English	470	
Irish	443	
Scotch	82	
United States	84	
Other countries and unknown	161	
		3,706

Previous Residence.

Received from cities in which Orphanages are located	2,670	
Received from counties in which Orphanages are located	380	
Received from other counties in the Province	540	
Emigrants and foreigners	116	
		3,706

The next table shews the aggregate stay of the inmates of the Orphanages, the fixed allowances in respect thereof under the Charity Aid Act, the receipts of the Institutions on maintenance account, the amount of the supplementary allowance, together with the total amount which will be recommended as the grant to be voted by the Legislature during the session of 1890. Following that table is one shewing the cost of maintaining the Orphanages, and then come the separate reports upon each Home.

NAMES OF ORPHANAGES.	Location.	Number in residence 1st October, 1888.	Number admitted during the year ending 30th September, 1889.	Total number maintained during the year.	Number discharged during the year.	Number of deaths during the year.	Number remaining in residence on 30th September, 1889.
Roman Catholic Orphan Asylum	Toronto	285	191	476	202	11	263
Protestant Orphans Home	"	155	71	226	73	.....	153
Girls' Home	"	79	76	155	71	.....	84
Boys "	"	100	30	130	49	.....	81
Newsboys Lodgings	"	12	121	133	115	.....	18
Infants Home and Infirmary	"	87	145	232	105	43	84
St. Nicholas Home	"	50	127	177	113	.....	64
Hospital for Sick Children	"	40	117	157	115	6	36
The Haven	"	.....	377	377	216	3	158
St. Marys Orphan Asylum	Hamilton	148	71	219	66	2	151
Orphan Asylum	"	26	7	33	8	.....	25
Boys' Home	"	77	35	112	31	.....	81
Girls' "	"	54	23	77	31	.....	46
Home for Friendless	"	25	37	62	18	3	41
Orphans Home	Kingston	48	28	76	22	.....	54
House of Providence Orphan Asylum	"	32	121	153	132	2	19
Hotel Dieu	"	34	50	84	53	.....	31
Orphans' Home	Ottawa	40	48	88	38	2	48
St. Patrick's Orphan Asylum	"	60	45	105	55	.....	50
St. Joseph's "	"	121	118	239	107	2	130
Roman Catholic Orphans Home	London	83	62	145	46	1	98
Protestant " "	"	56	27	83	33	.....	50
Womans Refuge and Infants Home	"	15	41	56	37	12	7
Protestant Home (Orphanage Branch)	St. Catharines	17	2	19	2	.....	17
Orphan Asylum	St. Agatha	40	2	42	7	.....	35
The Thomas Williams Home (Orphanage Branch)	St. Thomas	.....	.....	.....	.....	.....	.....
Orphan Asylum	Fort William	33	17	50	18	1	31
Totals 1889	.....	1717	1989	3706	1763	88	1855
Totals 1888	.....	1693	1759	3452	1578	127	1747

NAMES OF ORPHANAGES.	Location.	Aggregate stay of inmates.	Total expenditure on maintenance account for the year ending 30th of September, 1889.	Average cost per inmate per day.
			$ c.	Cents.
Roman Catholic Orphan Asylum	Toronto	104444	10124 55	9.69
Orphans' Home	"	58730	10738 26	18.28
Girls' Home	"	28725	6269 04	21.81
Boys' Home	"	32565	6755 58	20.87
Newsboys' Lodgings	"	7491	5663 76	75.60
Infants' Home and Infirmary	"	23247	7536 33	32.41
St. Nicholas Home	"	20575	5384 53	25.68
Hospital for Sick Children	"	14950	7989 00	53.44
The Haven	"	16437	864 00	5.25
St. Mary's Orphan Asylum	Hamilton	54763	8120 00	14.82
Orphan Asylum	"	9721	4440 05	45.67
Boys' Home	"	28856	5370 18	18.60
Girls' Home	"	18022	3540 03	19.64
Home for Friendless	"	16225	2859 56	17.62
Orphans' Home	Kingston	19360	2912 40	15.04
House of Providence Orphan Asylum	"	18651	†	
Hotel Dieu Orphan Asylum	"	9208	734 43	7.97
Orphans' Home	Ottawa	15573	*3851 79	
St. Patrick's Orphan Asylum	"	21421	*12631 12	
St. Joseph's " "	"	45972	5623 66	12.23
Roman Catholic Orphans' Home	London	31745	†	
Protestant Orphans' Home	"	18356		
Women's Refuge and Infants' Home	"	5462	1172 80	21.47
Protestant Home (Orphanage Branch)	St. Catharines	5479	1774 06	32.38
Orphan Asylum	St. Agatha	14064	1441 56	10.25
The Thomas Williams Home (Orphanage Branch)	St. Thomas			
Orphan Asylum	Fort William	12122	2282 24	18.82
Totals		652164	118078 93	

* Includes expenditure of Refuge Branch. † Included with Refuge Branch.

NAMES OF ORPHANAGES.	Location.	Aggregate stay of Inmates.	Fixed allowance at one and a half cents per day.	Amount received from all sources other than Government.	Supplementary allowance of one quarter such receipts, provided amount does not exceed the half cent allowance.	Supplementary allowance of half cent per day.	Total Government grant for the year 1890.
			$ c.	$ c.	$ c.	$ c.	$ c.
Roman Catholic Orphan Asylum	Toronto	104444	1566 66	8065 31	.....	522 22	2088 88
Orphans' Home	"	58730	880 95	8733 29	.....	293 65	1174 60
Girls' Home	"	28725	430 88	5917 19	.....	143 62	574 50
Boys "	"	32565	488 48	5987 58	.....	162 82	651 30
Newsboys Lodgings	"	7491	112 37	5378 17	.....	37 45	149 82
Infants Home and Infirmary	"	23247	.....	6519 34	.....	.....	‡1491 06
St. Nicholas Home	"	20575	308 63	4979 82	.....	102 87	411 50
Hospital for Sick Children	"	14950	.....	7851 75	.....	.....	2166 50
The Haven	"	16437	246 56	3300 42	.....	82 18	328 74
St. Marys Orphan Asylum	Hamilton	54763	821 45	6116 80	.....	273 81	1095 26
Orphan Asylum	"	9721	145 81	3756 35	.....	48 61	194 42
Boys Home	"	28856	432 84	4532 72	.....	144 28	577 12
Girls "	"	18022	270 33	3145 36	.....	90 11	360 44
Home for Friendless	"	16225	.....	2257 46	.....	.....	586 45
Orphans Home	Kingston	19360	290 40	3027 65	.....	96 80	387 20
House of Providence Orphan Asylum	"	18651	279 77	†	.....	93 25	373 02
Hotel Dieu	"	9208	138 12	95 25	.....	46 04	184 16
Orphans Home	Ottawa	15573	233 60	3245 46	.....	77 86	311 46
St. Patrick's Orphan Asylum	"	21421	321 32	*8435 04	.....	107 10	428 42
St. Joseph's "	"	45972	689 58	4653 42	.....	229 86	919 44
Roman Catholic Orphans Home	London	31745	476 18	†	.....	158 72	634 90
Protestant Orphan Home	"	18356	275 34	†	.....	91 78	367 12
Women's Refuge and Infants Home	"	5462	.....	615 12	.....	.....	246 91
Protestant Home (Orphanage Branch)	St. Catharines	5479	82 19	1587 85	.....	27 39	109 58
Orphan Asylum	St. Agatha	14064	210 96	1174 36	.....	70 32	281 28
The Thomas Williams Home (Orphanage Branch)	St. Thomas	.....	.....	†	.....	.....	.....
Orphan Asylum	Fort William	12122	181 83	1155 39	.....	60 61	242 44
Totals 1889		652164	8884 25	100531 10	.....	2961 35	16336 52
Totals 1888		653157	8804 10	92051 22	.....	2934 70	16453 69

* Includes receipts of Refuge Branch.
† Included with Refuge Branch.
‡ This sum includes 10 cents per day for the mother nurses, and a grant of $200 for Infirmary work.

SEPARATE REPORTS.

ROMAN CATHOLIC ORPHAN ASYLUM, TORONTO.

The following summaries shew the operations of this Orphanage during the year:—

Movements of Inmates.

In residence, 1st October, 1888	285	
Admitted	191	
Total number of inmates		476
Discharged	202	
Died	11	
In residence, 30th September, 1889	263	
		476

Sex.

Male	261	
Female	215	
		476

Religious Denominations.

Protestant	9	
Roman Catholic	467	
		476

Nationalities.

Canadian	400	
English	19	
Irish	38	
United States	10	
Other countries	9	
		476

Places admitted from.

City of Toronto	323	
County of York	23	
Other parts of Ontario	117	
Other countries	13	
		476

The receipts of the institution during the year, including the Government grant of $2,059.24, were $10,124.55 and the expenditures were $10,124.55.

The collective stay of the inmates was 104,444 days, entitling the institution to receive the sum of $2,088.88 as Government aid for the year 1890.

INSPECTIONS.

Copies of the reports made by me to the Government upon this Home are annexed :—

I visited the Roman Catholic Orphanage, Toronto, on the 3rd May, and the names registered numbered 148. I saw a large number of those of school age in the class-rooms ; with two exceptions the boys were all well, and one of those was confined to his cot in consequence of a cold. I found the Institution in proper order throughout.

I visited this Institution on the 20th September for a second time during the current year. There was 144 youths resident on the day of my visit.

The admissions during the past part of the current year have been 224, showing that 80 have been discharged during the same period. The premises were in good condition and the books properly kept.

PROTESTANT ORPHANS' HOME, TORONTO.

The following summaries shew the operations of this Institution during the past year :—

Movements of Inmates.

In residence, 1st October, 1888	155	
Admitted	71	
Total number of inmates		226
Discharged	73	
Died	..	
In residence, 30th September, 1889	153	
		226

Sex.

Male	132	
Female	94	
		226

Religious Denominations.

Protestant	180	
Other religions	46	
		226

Nationalities.

Canadian	201	
English	25	
		226

Places admitted from.

City of Toronto	184	
County of York	2	
Other parts of Ontario	34	
Other countries	6	
		226

The receipts of this institution during the year, including the Government grant of $1,346.20, were $10,079.49, and the expenditures were $10,738.86.

The collective stay of the inmates was 58,730 days, entitling the institution to receive the sum of $1,174.60 as Government aid for the year 1890.

INSPECTIONS.

Copies of the reports made by me to the Government are annexed —

I made an inspection of the Orphans' Home, Toronto, on the 3rd of May, and saw all the children then in charge, 165 in number, 99 males and 66 females. Those of school age were in the class-room, and the younger children, 37 in number, were in the nursery; all of them were in excellent health and appeared bright and happy.

I found the premises in good order. The routine work of the institution appeared to be progressing satisfactorily. The books, also, were properly and neatly kept.

I made an inspection of the Orphans' Home on the 20th September, and found that there was 168 orphans in charge, 99 males and 69 females.

I found general good health prevailing, and that 129 youths had been admitted up to the day of my visit for the past part of the current year. There were many evidences of the continued care and consideration bestowed upon the little ones in charge. Neatness and tidyness were observed in all the departments. The children were patterns of cleanliness and comfort. One only was confined to bed with an attack of rheumatism.

All the children of school age were under instruction in the class-room at the time of my visit, and they appeared to be earnest and anxious to make advancement.

GIRLS' HOME, TORONTO.

The following summaries shew the operations of this Home during the year:—

Movements of Inmates.

In residence, 1st October, 1888	79	
Admitted	76	
Total number of inmates	——	155
Discharged	71	
Died	..	
In residence, 30th September, 1889	84	
	——	155

Sex.

Male	3	
Female	152	
	——	155

Religious Denominations.

Protestant	150	
Roman Catholic	5	
	——	155

Nationalities.

Canadian	121	
English	17	
Irish	12	
United States	3	
Other countries	2	
	——	155

Places admitted from.

City of Toronto	148	
Other parts of Ontario	7	
	——	155

Including the Government grant of $644.76, the revenue of the Asylum during the year amounted to $6,561,95, and the expenditure to $6,269.04.

The collective stay of the inmates was 28,725 days, entitling the Asylum to receive a sum of $574.50 as Government aid for 1890.

INSPECTIONS.

A copy of the report made by me to the Government upon this Home is annexed:—

I made an inspection of the Girls' Home, Toronto, on the 9th August.

There were ninety-three girls being cared for on the day of my visit, all of whom were in good health with the exception of three who were being treated in the Sick Childrens' Hospital with the hope that they would be relieved from chronic ailments to which they were subject previous to their admission to the Home.

I found the premises neat and clean, and the books properly kept.

BOYS' HOME, TORONTO.

The following summaries shew the operations of the Home during the year:

Movements of Inmates.

In residence, 1st October, 1888	100	
Admitted	30	
Total number of inmates	——	130
Discharged	49	
Died	..	
In residence, 30th September, 1889	81	
	——	130

Religious Denominations,

Protestant	130	
Roman Catholic	..	
	——	130

Nationalities.

Canadian	99	
English	16	
Irish	10	
Other countries	5	
	——	130

Places admitted from.

City of Toronto	130	
	——	130

The receipts of the Home during the year, including the Government grant of $769.88, amounted to $6,757.46, and the expenditures were $6,755.58.

The collective stay of the institution was equal to 32,565 days, entitling the institution to receive the sum of $651.30 as Government aid for the year 1890.

INSPECTIONS.

Copies of the reports made by me to the Government are annexed:—

I made an inspection of the Boys' Home, Toronto, on the 13th of March, and on that day there were 93 boys in charge. During the previous week 6 lads were apprenticed and sent out to places in the country.

In consequence of the prevalence of a skin disease, 16 had been isolated in a separate building, This precaution was adopted more as a preventive measure than from any apparent present necessity and the boys will no doubt all be domiciled in the Institution again at an early day.

The whole house has been repainted since the date of my last visit, and now presents a very neat and tidy appearance. I found every department in its usual state of neatness and good order.

There are 80 boys now serving their apprenticeship in situations in which they have been placed by the authorities of the Institution; 10 others go out shortly to take like situations.

This feature of the Institutions's regulation work, by which the boys are apprenticed to farmers, is most commendable, and has been very satisfactory: In nearly every case the boys do well, and the employers are well satisfied with the lads placed under their charge. At the time of my visit the boys were assembled in the school room and presented a neat, tidy and cheerful appearance.

NEWSBOYS' LODGINGS, TORONTO.

The following summaries shew the operations of the Home during the year:—

Movements of Inmates.

In residence 1st October, 1888	12	
Admitted	121	
Total number of inmates	——	133
Discharged	115	
Died	..	
In residence, 30th September, 1889	18	
	——	133

Religious Denominations.

Protestant	111	
Roman Catholic	22	
		133

Nationalities.

Canadian	95	
English	23	
Irish	6	
Other countries	9	
		133

Places admitted from

City of Toronto	133	
		133

The receipts of the Home during the year, including the Government grant of $126.74, amounted to $5,504.91, and the expenditures were $5,663.76.

The collective stay of the institution was equal to 7,491 days, entitling the institution to receive the sum of $149.82 as Government aid for the year 1890.

INSPECTIONS.

Copies of the reports made by me to the Government are annexed:

I visited the Newsboys' Lodgings, Toronto, on the 15th March.

The names of 20 boys were entered upon the roll as lodgers. This lessened number in residence was accounted for by the fact that many lads had found permanent homes with residents outside of the city, and a number of them had been placed in such situations lately. The total number cared for since the 1st of October was 64.

I found the home in good order. Since the repairs have been made, and the additional accommodation provided it presents a very much improved appearance. The dormitories were scupulously clean and neat. 56 beds are in place ready for occupants and the accommodation is now all that can be desired.

It is to be hoped that the interesting class for which the Home was built may appreciate the efforts made in their behalf.

I made a second inspection of the Newsboy's Lodgings, Toronto, on the 19th Sept. On that date there were the names of 19 boys on the roll as lodgers in the institution. 17 of them were reported to be employed in various ways and were absent from the lodgings during the hour of my visit.

The premises were found to be tidily kept and in good order.

Since the re-construction of the building no complaint exists as to its sanitary condition. All the boys were reported to be in good health. The number admitted during the past month was 27, and 22 were discharged for whom homes were procured. The greater number of them have been sent to the country, and the reports received of 21 of them are very favorable and shew that they are satisfied with their employment and that their employers are equally satisfied with the boys.

The action of the institution in this regard is commendable.

THE INFANTS' HOME, TORONTO.

The following summaries show the operations of this Home during the past year:—

Movements of Inmates.

	Infants.	Mothers.	Total.
In residence, 1st October, 1888	58	29	87
Admitted	109	36	145
Total number of inmates	167	65	232
Discharged	66	39	105
Died	43	...	43
In residence, 30th September, 1889	58	26	84
	167	65	232

The statistical information regarding the infants is as follows, viz:—

Sex.

Male	78	
Female	154	
		232

Religious Denominations.

Protestant	218	
Roman Catholic	14	
		232

Nationalities.

Canadian	211	
English	18	
Irish	3	
Scotland	...	
Other countries	..	
		232

Places Admitted from.

City of Toronto	232	
Province of Ontario	...	
Other countries	...	
		232

The receipts of the Home during the year were $8,148.02, and the expenditures were $7,536.33.

The collective stay of the children equalled 23,247 days. The Home will be entitled in respect of them to $464.94.

The collective stay of the mother nurses, for whom 10 cents a day is allowed, was 7,767 days. The Home will therefore be entitled to $776.70.

The collective days' stay of the other women, for whom 7 cents per day is allowed, was 706 days, for which the sum of $49.42 will be allowed.

The total grant, therefore, to the Home for 1890, including the grant of $200 for the Infirmary work, will amount to $1,491.06.

INSPECTIONS.

Copies of the reports made by me to the Government upon this Home are annexed :—

I made a visit of inspection to the Infants' Home and Infirmary, Toronto, on the 20th day of May, and saw the 27 adult females and 59 infants then being cared for in the Institution.

Since the 18th of October last 22 mothers have been admitted. The health record of the Institution for the past seven months is good, and while a number of deaths have taken place, it is noted that they were the result of disease or ailments contracted previous to their admission to the Institution. Between four and five months have elapsed without any death being recorded, and the general condition of this charity is satisfactory.

I found the Institution undergoing extensive repairs, rendered necessary mostly on account of the poor and very inferior work in erecting the building. After the repairs it is being painted throughout. These improvements will undoubtedly add to the sanitary condition of the Institution, and increase the comfort of both mothers and children.

I made an inspection of the Infants' Home, Toronto, on the 16th of September. On that date there were 90 inmates, namely, 26 mother nurses and 64 infants. 61 women and 114 infants have been admitted during the current year. In the Infirmary Branch 48 have been admitted during the same period. In this last number the infants have all been under treatment, and the necessity for the establishment of this Branch is becoming more obvious every day where so large a number of infants have to be cared for with medical skill and attention. No child is admitted to this Branch in a healthy condition, and from the number of patients under treatment during the past three months it would appear that the work of this Branch is increasing.

I found the Institution in excellent condition throughout, and ample evidence of the growing interest exercised in its management.

ST. NICHOLAS HOME, TORONTO.

The following summaries shew the operations of the Home during the official year :—

Movements of Inmates.

In residence, 1st October, 1888	50	
Admitted	127	
Total number of inmates		177
Discharged	113	
Died	..	
In residence, 30th September, 1889	64	
		177

Sex.

Male	177	
		177

Religious Denominations.

Protestant	18	
Roman Catholic	159	
		177

Nationalities.

Canadian	111	
English	24	
Irish	27	
Other countries	15	
		177

Places admitted from.

City of Toronto	74	
Other Places	103	
		177

The revenue of the Home during the year, including the Government grant of $378.00, was $5,357.82, and the expenditure was $5,384.53.

The collective stay of the boys was 20,575 days, entitling the institution to receive the sum of $411.50 as Government aid for 1890.

INSPECTIONS.

Copies of the reports made by me to the Government are annexed :—

I made an inspection of the St. Nicholas Home, Toronto, on the 15th of March. I found the Home in its usual condition, clean and neat in all its apartments. The names of 57 were on the roll as lodgers. The night school in connection with the Institution was reported as very satisfactory ; samples of writing shown me by the teachers were very creditable.

I made a second inspection of this institution for the current year on the 19th September. On that day there were the names of 60 lodgers recorded, the great majority of whom were absent from the Institution engaged in various employments. The names of 165 were recorded as having been received in the Institution during the past part of the current year, and I was informed that employment and positions had been found in the city and country for the greater number of those who had left the Institution. All classes and conditions can find temporary admission to this Institution and have their wants provided for until they can obtain employment or help from other sources.

I found the books properly kept and the premises in excellent order.

HOSPITAL FOR SICK CHILDREN.

The following summaries shew the operations of this institution during the year :—

Movements of Inmates.

Under treatment, 1st October, 1888	40	
Admitted	117	
Total number of inmates	——	157
Discharged	115	
Died	6	
Under treatment 30th September, 1889	36	
	——	157

Sex.

Male	75	
Female	82	
	——	157

Religious Denominations

Protestant	144	
Roman Catholic	12	
Other Religions	1	
	——	157

Nationalities.

Canadian	157	
	——	157

Places admitted from.

City of Toronto	123	
County of York	3	
Other counties and countries	31	
	——	157

In the Convalescent Home on the Island, 88 children were admitted during the summer season, but the majority of these were patients transferred from the Hospital.

The income of the Hospital during the year amounted to $10,205.97, and the expenditures to $7,989.00.

The collective stay of the inmates, including those in the Island Home, who required active medical or surgical treatment, was equal to 14,000 days, entitling the institution to aid to the extent of $2,100.00.

The collective stay of the children admitted to the Island Home as convalescents was 950 days. The Hospital will be entitled in respect of them to an allowance of 7 cents per day, equal to $66.50, making a total of $2,166.50 as Government aid for the year 1890.

INSPECTIONS.

Copies of the reports made by me to the Government are annexed :—

I visited the Sick Children's Hospital, Toronto, on the 20th of March. On that day there were 38 children under charge and treatment. I met the two medical gentlemen attached to the staff, who were making their daily and professional visits to the little sufferers.

I was given to understand that the new Hospital buildings will be proceeded with at an early day. Owing to the crowded condition of the present buildings, it is desirable that no unnecessary delay should occur in having it ready for occupation. I found the Hospital apartments in good order, clean and tidy, and evidence that every attention was paid to patients under charge.

The books were properly kept.

I made a second inspection of the Sick Children's Hospital, Toronto, for the current year on the 19th of September.

I found 33 little patients under treatment, 20 of whom had returned on the day previous from their home on the Island, where they had been during the summer months.

During the past part of the year 150 patients have been admitted, and only 6 deaths have been recorded during the same period. In view of the many serious cases under charge, this must be regarded as a very satisfactory showing. The present Hospital buildings, too, are not situated in such a desirable locality as to warrant the best results, especially in the treatment of surgical cases. The new buildings are in process of erection, however, and are expected to be completed within a year from date. I found the present buildings neatly and cleanly kept, and the books in proper order.

THE HAVEN, TORONTO.

The following summaries shew the operations of this Asylum during the year:—

Movements of Inmates.

In residence, 1st October, 1888	...	
Admitted	377	
Total number of inmates		377
Discharged	216	
Deaths	3	
In residence, 30th September, 1889	158	
		377

Sex.

Male	46	
Female	331	
		377

Religious Denominations.

Roman Catholic	197	
Protestant	180	
		377

Nationalties.

Canadian	100
English	120
Other countries	157

Places admitted from

City of Toronto	252	
Other cities and counties	125	
		377

The income of the Haven during the year amounted to $3,300.42, and the expenditure to $864.00.

The collective stay of the inmates was equal to 16,437 days, thus entitling the institution to receive the sum of $328.74, as Government aid for 1890.

INSPECTION.

A copy of the report made to the Government is annexed :—

I made an inspection of the Haven, Toronto, on the 19th of March, for the purpose of reporting to the Government as to its condition and utility as a public charity, for which the management were requesting aid under the Act.

On the day of my visit there were 45 females receiving care and lodging in the institution; these were divided into three classes, according to previous record.

The building has been greatly enlarged during the past season, and now furnishes sufficient accommodation for 45 or 50 inmates. The building is thoroughly heated and ventilated, and well adapted for the purpose to which it is intended.

The number of inmates sheltered during the past year was 484, and as many as 57 have been accommodated with lodgings at one time.

The institution appears to be properly conducted, and is of great benefit to the destitute, and in many instances forsaken and needy class.

ST. MARY'S ORPHAN ASYLUM, HAMILTON.

The following summaries shew the operations of this Asylum during the year :—

Movements of Inmates.

In residence, 1st October, 1888	148	
Admitted	71	
Total number of inmates		219
Discharged	66	
Died	2	
In residence, 30th September, 1889	151	
		219

Sex.

Male	126	
Female	93	
	——	219

Religious Denominations

Protestant	1	
Roman Catholic	218	
	——	219

Nationalities.

Canadian	211	
English	4	
Irish	4	
	——	219

Places admitted from.

City of Hamilton	132	
County of Wentworth	18	
Other counties and countries	69	
	——	219

Including the Government grant of $1,089.56 the revenue of the Asylum during the year amounted to $7,206.36, and the expenditure to $8,120.00.

The collective stay of the inmates was 54,763 days, entitling the Asylum to receive a sum of $1,095.26, as Government aid for 1890.

INSPECTIONS.

A copy of the report made by Dr. O'Reilly to the Government is annexed:—

I made an inspection of the St. Mary's Orphan Asylum, Hamilton.

There were 64 children in this institution on the day of my visit, all of whom appeared to be well and happy. A new play-ground of considerable size has been added to the premises and is found to be a great boon to the children, it supplies a want which was very much felt in this institution heretofore.

PROTESTANT ORPHAN ASYLUM, HAMILTON.

The following summaries shew the operations of this Asylum during the year:—

Movements of Inmates.

In residence, 1st October, 1888	26	
Admitted	7	
Total number of inmates	——	33
Discharged	8	
In residence, 30th September, 1889	25	
	——	33

Sex.

Male	28	
Female	5	
		33

Religious Denominations.

Protestant	33	
		33

Nationalities.

Canadian	31	
English	2	
		33

Place admitted from.

City of Hamilton	33	
		33

The receipts of the Asylum during the year were $4,493.84, and the expenditures were $4,440.05. The receipts and expenditures of the Aged Women's Refuge are included in these amounts.

The collective stay of the children was 9,721 days, entitling the institution to receive the sum of $194.42 as Government aid for 1890.

INSPECTIONS.

Copies of the reports made to the Government by Dr. O'Reilly are annexed:—

I made an inspection of the Protestant Orphan Asylum, Hamilton, on the 22nd May. The names of twenty-six children were on the registrar on that date.

I found the institution work being carried on properly, and everything in good order.

I visited the Protestant Orphan Asylum, Hamilton, on the 6th December, and found the total number of inmates on that day to be 24, 18 boys and 6 girls.

There is a school attached to this Orphanage at which nearly the whole of the children attend.

I saw the school in operation and it appears to be well managed.

The usual excellent order and cleanliness prevailed throughout the institution.

BOYS' HOME, HAMILTON.

The following summaries shew the operations of this Home during the year:—

Movements of Inmates.

In residence, 1st October, 1888	77	
Admitted	35	
Total number of inmates		112
Discharged	31	
Died	..	
In residence, 30th September, 1889	81	
		112

Religious Denominations.

Protestant	111	
Roman Catholic	1	
Other religions	..	
	——	112

Places admitted from.

Hamilton	112	
	——	112

Nationalities.

Canadian	62	
English	20	
Irish	11	
Scotch	6	
Other countries	13	
	——	112

The receipts of the Home during the year were $5,093.86, and the expenditures were 5,370.18.

The collective stay of the inmates was 28,856 days, entitling the House to receive the sum of $577.12 as Government aid for 1890.

INSPECTIONS.

A copy of the report made to the Government by Dr. O'Reilly is annexed:—

My first inspection of the Boys' Home Hamilton, for the current year, was made on the 22nd May, when it contained 85 boys, most of whom I saw.

The institution was found to be in its usual excellent condition. The matron reports that there has been no sickness in the house during the past year and that the heating apparatus, about which I remarked on a previous visit as being unsatisfactory, has been put in thorough working order, and during the past winter a comfortable temperature has been maintained throughout the building.

GIRLS' HOME, HAMILTON.

The following summaries shew operations of this Home during the year:—

Movement of Inmates.

In residence, 1st October, 1888	54	
Admitted	23	
Total number of inmates	——	77
Discharged	31	
Deaths	..	
In residence, 30th September, 1890	46	
	——	77

Sex.

Male	1	
Female	76	
	——	77

Religious Denominations.

Protestant	77	
	——	77

Nationalities.

Canadian	69	
English	4	
Irish	1	
Other countries	3	
	——	77

Places admitted from.

City of Hamilton	77	
Other parts of the Province of Ontario	..	
	——	77

The revenue of the Home during the year was $3,542.44, and the expenditure was $3,540.03.

The collective stay of the children was 18,022 days, entitling the Home to receive a sum of $360.44 as Government aid for 1890.

INSPECTIONS.

Copies of the reports made to the Government by Dr. O'Reilly are annexed:—

I made my first inspection of the Girls' Home, Hamilton, on the 22nd of May.

There were in residence on that date, 50 children, 41 of whom were at school on the day of my visit.

This school is thoroughly well kept by the Public School Department of Hamilton, and is treated in all respects as a public school.

House cleaning was in progress on the day of my visit, and some improvements are under way.

I made an inspection of the Girls' Home, Hamilton, on the 6th December.

There were 48 girls in residence on the day of my visit—all healthy and well cared for.

The Home was in its usual condition of good order

HOME FOR THE FRIENDLESS, HAMILTON.

The following summaries shew the operations of this Home during the year:—

Movements of Inmates.

In residence, 1st October, 1888	25	
Admitted	37	
Total number inmates		62
Discharged	18	
Died	3	
In residence, 30th September, 1889	41	
		62

Sex.

Male (infants)	27	
Female	35	
		62

Religious Denominations.

Protestants	58	
Roman Catholic	4	
		62

Nationalities.

Canadian	56	
English	1	
Irish	1	
Scotch	4	
		62

Places admitted from.

City of Hamilton	57	
Other places and counties	5	
		62

The revenue of the Home, exclusive of the Government grant of $440.17, was $2,257.46. and the expenditure $2,859.56.

The collective stay of the children equalled 12,270 days. The Home, therefore, will be entitled in respect of them to $245.40.

The collective stay of mother nurses, for whom 10 cents a day is allowed was 2,140 days. The Home in respect of these will be entitled to $214.00.

The collective days' stay of those mothers for whom 7 cents per day is allowed was 1,815 days, for which they are entitled to receive $127.05.

The total grant to the Home, therefore, for 1890 will amount to $586.45.

INSPECTIONS.

Copies of the reports made to the Government by Dr. O'Reilly are annexed :—

I made my first inspection of the Home for the Friendless, Hamilton, on the 22nd of May.

There were in residence on this day 13 adult and 36 infants, making a total of 49. I went over every part of the house with the matron, saw all the inmates, and found everything in its usual excellent condition.

The new part of the building which is just completed and furnished is now open, and provision for a grand celebration of this event on the afternoon of the day of my visit was in progress.

The ladies engaged in this work are much encouraged by the success they have met with and the rapid progress they have been making recently, seems to prove that the institution and its work has the sympathy of the people of Hamilton.

The Home for the Friendless, Hamilton, was inspected by me on the 6th December, when it contained 13 adult females and 35 children—total 48.

I found the institution in its usual condition of good order.

ORPHANS' HOME, KINGSTON.

The following summaries shew the operations of the institution during the year :—

Movements of Inmates.

In residence, 1st October, 1888	48	
Admitted	28	
Total number of inmates		76
Discharged	22	
Died	...	
In residence, 30th September, 1889	54	
		76

Sex.

Male	51	
Female	25	
		76

Religious Denominations.

Protestant	76	
Roman Catholic	..	
		76

Nationalities.

Canadian	53	
English	20	
Other countries	3	
	——	76

Places admitted from.

City of Kingston	60	
County of Frontenac	4	
Other counties of Ontario	12	
	——	76

The revenue of the Home during the year was $3,451.41, including the Government grant of $423.76, and the expenditure was $2,912.40.

The collective stay of the children was 19,360 days, entitling the institution to receive a sum of $387.20 as Government aid for 1890.

INSPECTIONS.

Copies of the reports made by me to the Government upon this Home are annexed:—

I visited the Orphans' Home, Kingston, on the 10th of May. On that day there were fifty children and one adult then under charge, thirty-two boys and twenty girls. Owing to the prevalence of severe sore throat two of the children had been sent to the hospital, and six others remained in the sick room of the institution. Apart from this anxiety in regard to their health, I found the Home in its usual good order, and there were numerous evidences that every attention was being paid in order to secure the comfort and well-being of the children Alterations are being made which will no doubt add to the sanitary condition of the Home; the basement is being refloored, and a large portion concreted. One side of the dining-room is being laid with wood, and the remaining rooms are being painted. When the painting is completed and the plumbing re-fitted, the establishment will be in excellent order. The books are properly kept.

I made an inspection of the Orphans' Home, Kingston, on the 27th September, fifty-four children were under charge on that day. The health of the institution was reported to be good, and no change was noticeable in its working since the date of my last visit.

The former matron, Mrs. Miller, who had so successfully carried on the work of the institution has resigned, and to her good management, no doubt, may be attributed a good share of the success which has followed during past years. I found the records properly kept.

ORPHANAGE OF THE HOUSE OF PROVIDENCE, KINGSTON.

The following summaries shew the operations of this Orphanage during the official year:

Movements of Inmates.

In residence, 1st October, 1888	32	
Admitted	121	
Total number of inmates		153
Discharged	132	
Died	2	
In residence, 30th September, 1889	19	
		153

Sex.

Males	121	
Females	32	
		153

Religious denominations.

Protestants	3	
Roman Catholics	150	
		153

Nationalities.

Canadian	30	
English	102	
Irish	15	
Other countries	6	
		153

Places admitted from.

City of Kingston	10	
County of Frontenac	4	
Other countries	139	
		153

The receipts and expenditures of the Orphanage are included with those of the House of Providence, and cannot be shewn separately.

The collective stay of the children was 18,651 days, entitling the Orphanage to receive the sum of $373.02, as Government aid for 1890.

Inspection.

A copy of the report made by me to the Government is annexed:—

I visited this Institution on the 10th day of May. In this Orphanage there were recorded the names of twenty-one youths and children as being cared for: a large number were reported absent at school.

The re-fitting of the building, which has lately been authorised by the authorities, for the accommodation of the children, will so far as can be judged at the present stage of the work, be good, and a comfortable home will in the future be provided for a large number of children. In the future they will be taught in a class-room in the building, which will do away with the necessity of sending the orphans out of the institution to receive the required training.

HOTEL DIEU ORPHAN ASYLUM, KINGSTON.

The following summaries show the operations of this Asylum during the year :—

Movements of Inmates.

In residence, 1st October, 1888	34	
Admitted	50	
Total number of inmates	——	84
Discharged	53	
Deaths	....	
In residence, 30th September, 1889	31	
	——	84

Sex.

Male	6	
Female	78	
	——	84

Religious denominations.

Roman Catholic	82	
Protestant	2	
	——	84

Nationalties.

Canadian	61	
English	23	
Other countries	....	
	——	84

Places admitted from.

City of Kingston	50	
County of Frontenac	30	
Other counties and countries	4	
	——	84

The income of the Asylum during the year amounted to $346.39, and the expenditure to $734.43.

The collective stay of the inmates was equal to 9,208 days, thus entitling the institution to receive the sum of $184.16 as Government aid for 1890.

INSPECTIONS.

Copies of the reports made by me to the Government upon this Orphanage are annexed:—

I visited the Hotel Dieu Orphange, Kingston, on the 10th day of May, and saw the twenty-four persons in charge of the institution. There were seventeen youths, two adult males, and five adult females. The children were in good health, neatly and comfortably clad.

The books were properly and neatly kept.

I made an inspection of the Hotel Dieu Orphanage, Kingston, on 27th of September. There were thirty-two children being cared for, all of whom were in good health and neat and tidy in their appearance.

The apartments were in excellent order.

ORPHANS' HOME, OTTAWA.

The following summaries shew the operations of this Home during the year:—

Movements of Inmates.

In residence, 1st October, 1888	40	
Admitted	48	
Total number of inmates	——	88
Discharged	38	
Died	2	
In residence, 30th September, 1889	48	
	——	88

Sex.

Male	41	
Female	47	
	——	88

Religious denominations.

Protestant	88	
Roman Catholic	....	
	——	88

Nationalties.

Canadian	76	
English	4	
Other countries	8	
	——	88

Places admitted from.

City of Ottawa	75	
County of Carleton	6	
Other countries	7	
	——	88

The revenue of the Home was $3,791.22, and the expenditures were $3,851.79,

The collective stay of the children was equal to 15,573 days, thus entitling the institution to receive the sum of $311.46 as Government aid for 1890.

INSPECTIONS.

A copy of the report made by me to the Government upon this Orphanage is annexed:—

I made an inspection of the Orphans' Home, Ottawa, on the 9th of April, and found that the routine, order and work of the Orphanage was being continued in a very satisfactory manner.

The books of record were neatly and properly kept.

There were forty-seven children in charge on the day of visit, all of whom I saw, and they were in good health. No adverse condition had existed since the date of my previous visit in respect to matters of health, or other unfavorable change which would interfere with the ordinary work of the institution.

The children of school age were assembled in the school-room, and the majority of them appeared to be bright and intelligent, and the reports in regard to their progress generally was very satifactory.

I instructed Mr. Nicholson to make an inspection of this Home, a copy of his report to me is appended:—

I have the honor to report that, as directed by you, I visited the Protestant Orphans' Home, Ottawa, on the 26th July, when forty-three children were registered as inmates. There were also fourteen adult females being cared for in a separate part of the building.

The children were reported to be in good health, and they had the appearance of being well provided for.

The building in all its departments was found to be scrupulously clean and in the best of order.

ST. PATRICK'S ORPHAN ASYLUM, OTTAWA.

The following summaries shew the operations of this Asylum during the year:—

Movements of Inmates.

In residence, 1st October, 1888	60	
Admitted	45	
Total number of inmates		105
Discharged	55	
Died	..	
In residence 30th September, 1889	50	
		105

Sex.

Male	49	
Female	56	
		105

Religious denominations.

Protestant	3	
Roman Catholic	102	
		105

Nationalities.

Canadian	73	
English	8	
Irish	22	
Scotch	2	
	——	105

Places admitted from.

City of Ottawa	87	
Other parts of the Province	18	
	——	105

The income of this Orphanage was $11,722.11, inclusive of the Government grant, and the expenditure $12,631.10.

The collective stay of the children was equal to 21,421 days, entitling the institution to receive the sum of $428.42 as Government aid for 1890.

INSPECTIONS.

A copy of the report made by me to the Government upon this Home is annexed :—

I made an inspection of the St. Patrick's Orphanage on the 9th of April and found that there were 60 youths registered as inmates on the day of my visit. Of this number 50 were in the school room under instruction.

They were all in good health and were clean and tidily dressed and comfortable in their appearance.

Some of those in the class-room especially assembled for the occasion were assisting in household work in the ordinary routine; but were under instructions at certain times when the household duties were completed for the day.

I instructed Mr. Nicholson to make an inspection of this home, A copy of his report is appended :—

As instructed by you I made an inspection of the St. Patrick's Orphan Asylum, Ottawa, on the 26th July, when there were sixty-four children in charge. They were all in good health and appeared to be well cared for.

The apartments of the Orphanage were clean and in good order.

ST, JOSEPH'S ORPHAN ASYLUM, OTTAWA.

The following summaries shew the operations of this Charity during the year :—

Movements of patients.

In residence, 1st October, 1888	121	
Admitted	118	
Total number of inmates	——	239
Discharged	107	
Died	2	
In residence, 30th September, 1889	130	
	——	239

Sex.

Male	98	
Female	141	
	——	239

Religious Denominations.

Roman Catholic	141	
Protestant	98	
	——	239

Nationalities.

Canadian	216	
Irish	7	
Other countries	16	
	——	239

Places admitted from.

City of Ottawa	173	
County of Carleton	37	
Other counties and places	29	
	——	239

The receipts of the institution were $5,566.76, and the expenditures $5,623 66.

The collective stay of the children was 45,972 days, entitling the Asylum to receive the sum of $919.44 as the Government aid for 1890.

INSPECTIONS.

A copy of the report made by me to the Government upon this Home is annexed :—

I made the first annual inspection of the St. Joseph Orphanage, Ottawa, for the current year, on the morning of the 10th of April, and found that there were 121 youths under charge, 50 of them were boys, and 71 girls. I found the children all in good health. The classes then assembled in the school room were represented as making good progress.

The children appeared neat and clean and were well clad, and there was good evidence of the care and interest taken in them.

Nothing worthy of note in the routine work of the Institution has taken place since the date of my last visit.

The books and all the apartments were found to be in excellent order, and the supervision in all the departments of the Institution were well and carefully exercised.

I instructed Mr. Nicholson to make an inspection of this Orphanage, a copy of his report to me is appended :—

I have the honour to state that, in accordance with your instructions, I made an inspection of the St. Joseph's Orphanage, Ottawa, on the 26th July.

The inmates numbered on that date 118 youths, 1 adult male and 7 adult females.

The building throughout was very clean and tidy, and the books of record were entered up.

ROMAN CATHOLIC ORPHANS' HOME, LONDON.

The following summaries shew the operations of this Orphanage during the year:—

Movements of Inmates.

In residence, 1st October, 1888	83	
Admitted	62	
Total number of inmates		145
Discharged	46	
Died	1	
In residence, September, 1889	98	
		145

Sex.

Male	81	
Female	64	
		145

Religious denominations.

Roman Catholic	145	
Protestant	...	
		145

Nationalities.

Canadian	140	
Irish	5	
		145

Places admitted from.

City of London	67	
Other parts of Ontario	78	
		145

The receipts and expenditures of this Home are included with those of the House of Refuge.

The collective stay of these children was 31,745 days, entitling the Asylum to receive the sum of $634.90 as Government aid for 1890.

Inspection.

A copy of the report made to the Government by Dr. O'Reilly is annexed:—

I visited the Roman Catholic Orphans' Home, London, on the 1st November. There were 95 children in the Institution on that date.

I found the House in its usual excellent condition of order and cleanliness.

The completion of the New Laundry by the House of Refuge, which is also used for the work of this Institution, will greatly add to its efficiency. The new laundry has been fitted up by the Troy Laundry Machinery Co. in a manner which leaves nothing to be desired.

PROTESTANT ORPHANS' HOME, LONDON.

The following summaries shew the operations of this Orphanage during the year :—

Movements of Inmates.

In residence, 1st October, 1888	56	
Admitted	27	
Total number of inmates	——	83
Discharged	33	
Died	..	
In residence, September, 1889	50	
	——	83

Sex.

Male	54	
Female	29	
	——	83

Religious Denominations.

Protestant	82	
Roman Catholic	1	
	——	83

Nationalities.

Canadian	72	
Irish	2	
Other countries	9	
	——	83

Places admitted from.

City of London	83	
Other parts of Ontario	...	
	——	83

The receipts and expenditures of this Home are included with those of the House of Refuge.

The collective stay of these children was 18,356 days, entitling the Asylum to receive the sum of $367.12, as Government aid for 1890.

Inspection.

A copy of the report made to the Government by Dr. O'Reilly is annexed :

I visited the Protestant Orphans' Home, London, on the 1st of November, when there were 4 adult males and 47 children in residence.

On this occasion I found that at least the management of the institution had set vigorously to work to improve the sanitary condition of the building. A contract had been let to a plumber, and the work was in actual progress. I examined the plans for the prosecution of the work, and feel satisfied that when completed I shall be able to report a very satisfactory condition in this regard.

A telephone is very much needed at this institution. The introduction of this convenience would be found to promote very materially the efficient working of the institution. I would strongly recommend this to the consideration of the management.

WOMEN'S REFUGE AND INFANTS' HOME, LONDON.

The following summaries show the operations of this charity during the year:

Movement of inmates.

In residence, 1st October, 1888	15	
Admitted	41	
Total number of inmates		56
Discharged	37	
Died	12	
In residence, 30th September, 1889	7	
		56

Sex.

Male (infants)	33	
Female	23	
		56

Religious Denominations.

Protestant	48	
Roman Catholic	8	
		56

Places admitted from,

City of London	51	
Counties in Ontario	4	
Other countries	1	
		6

The receipts during the year, exclusive of the Government grant of $291.82 were $615.12, and the expenditures $1,172.80.

The collective stay of the children equalled 3,419 days. The Home will, therefore, be entitled in respect of them to $68.38. The collective stay of mother nurses, for whom 10 cents a day is allowed, was 1,184 days. The Home in respect of these will be entitled to $118.40.

The collective days' stay of those mothers, for whom 7 cents per day is allowed, was 859 days, for which they are entitled to receive $60.13.

The total grant to the Home therefore, for 1890, will amount to $246.91.

Inspection.

A copy of the report made to the Government by Dr. O'Reilly is appended:

I made an Inspection of the Women's Refuge and Infants' Home, London, on the 1st of November.

There were six adult females, and seven children in this House on the day of my visit. I found the Institution in a very satisfactory condition.

PROTESTANT HOME (ORPHANAGE BRANCH) ST. CATHARINES.

The following summaries shew the operations of this charity during the year:—

Movements of Inmates.

In residence, 1st October, 1888	17	
Admitted	2	
Total number of Inmates		19
Discharged	2	
Died	....	
In residence, 30th September, 1889	17	
		19

Sex.

Male	12	
Female	7	
		19

Religious Denomination.

Protestant	19	
		19

Nationalities.

Canadian	12	
English	5	
Irish	2	
Other countries	....	
		19

Places admitted from.

City of St. Catharines	16	
County of Lincoln	3	
		19

The revenue and expenditure of the Home during the year amounted to $1,791.25 and $17,74.06, respectively. The receipts and expenses connected with the Refuge Branch of the Home are also included in these sums.

The collective stay of the children was 5,479 days, entitling the Institution to receive the sum of $109.58 as Government aid for 1890.

Inspections.

A copy of the report made to the Government by Dr. O'Reilly is appended:

I made an inspection of the Protestant Home, St. Catharines, on the 22nd February.

There were 2 adult males, 1 adult female, and 15 children in the Home on the day of my visit. I have always heretofore found this Institution in excellent order, and this occasion was no exception to the rule. Everything connected with the Home was in the most satisfactory shape.

ST. AGATHA'S ORPHAN ASYLUM, ST. AGATHA.

The following summaries shew the operations of this Asylum during the year:—

Movements of Inmates.

In residence, 1st October, 1888	40	
Admitted	2	
Total number of inmates	——	42
Discharged	7	
Died	....	
In residence, 30th September, 1889	35	
	——	42

Sex.

Male	27	
Female	15	
	——	42

Religious Denominations.

Roman Catholic	42	
	——	42

Nationality.

Canadian	42	
	——	42

Places Admitted from.

Village of St. Agatha	1	
County of Waterloo	40	
Other counties	1	
	——	42

The revenue of the Asylum was $1,461.56, including the Government grant of $287.20, and the expenditures were $1,441.56.

The collective stay of the children was 14,064 days, entitling the Asylum to receive the sum of $281.28 as Government aid.

INSPECTION.

Dr. O'Rielly, instructed Mr. Mann to make an inspection of this Orphanage. He reported as follows:—

I made an inspection of the Orphans' Home, St. Agatha, on the 7th October, 1889.

The children in residence numbered 33, of these 22 were males and 11 females. They were all in good health, and showed evidences of comfortable surroundings

The rooms were scrupulously clean and in good order.

The books were entered up to date.

ORPHANS' HOME, FORT WILLIAM.

The following summaries shew the operations of this Charity during the year :—

Movements of Inmates.

In residence, 1st October, 1888	33	
Admitted	17	
Total number of inmates	——	50
Discharged	18	
Died	1	
In residence, 30th September, 1889	31	
	——	50

Sex.

Male	24	
Female	26	
	——	50

Religious Denominations.

Roman Catholic	43	
Protestant	7	
	——	50

Nationality.

Canadian	50	
	——	50

Place admitted from.

Town of Port Arthur	13	
" " Fort William	29	
Other counties of the Province	8	
	——	50

The revenue of the Home was $1,929.25, and the expenditure $2,282.24.

The collective stay of the children was 12,122 days, entitling the Home to receive the sum of $242.44, as Government aid for 1890.

The inspection is included in the report upon the Home is already given in the section relating to Refuges.

MAGDALEN ASYLUMS.

MES OF MAGDALEN HOSPITAL .	Location.	No. of persons in residence on 1st October, 1888.	No. admitted during the year 1889.	Total number under lodgment during the year.	No. of discharges during the year.	No. of deaths during the year.	No. in residence 30th September, 1889.
Industrial Refuge	Toronto	20	28	48	32	1	15
Good Sheppard Refuge for Fallen Women	do	45	42	87	40	1	46
Good Shepherd Magdalen Asylum.....	Ottawa	104	82	186	77	6	103
Totals, 1889	.....	169	152	321	149	8	164
" 1888	.....	177	172	349	173	7	169

The statistics for each Asylum, in respect of sex, religious denominations, nationalities and previous residences of the inmates, have been summarized as under :—

Sex.

Male - - - - - - - - - - - -	.....	
Female - - - - - - - - - - - -	321	
		321

Religious Denominations.

Protestant - - - - - - - - - - -	46	
Roman Catholics - - - - - - - - -	275	
		321

Nationalities.

Canadian - - - - - - - - - - -	161	
English - - - - - - - - - - -	36	
Irish - - - - - - - - - - - -	105	
Scotch - - - - - - - - - - - -	6	
United States - - - - - - - - - -	13	
Other Countries - - - - - - - - - -	.....	
		321

Previous Residences.

Received from city or town in which institutions are located	220	
Received from counties in which institutions are located	18	
Received from other counties in the Province - - - -	43	
Emigrants and foreigners - - - - - - -	40	
		321

The next two tables exhibit respectively the aggregate stay of the inmates and the amounts which will be recommended as the grants to be voted in 1890, and the cost of maintaining the various asylums :—

NAMES OF MAGDALEN ASYLUMS.	Location.	Aggregate days' stay of inmates.	Amount received from all sources other than Government.	Total Government grant for the year 1890 at the rate of two cents per day.
			$ c.	$ c.
Industrial Refuge	Toronto ...	7869	4073 18	157 38
Good Shepherd Refuge for Fallen Women	do. ...	17457	9933 96	349 14
Good Shepherd Magdalen Asylum	Ottawa....	36847	6674 78	736 94
Totals, 1889		62173	18681 92	1243 46
Totals, 1888		63493	21696 70	1269 86

NAMES OF MAGDALEN ASYLUMS.	Location.	Aggregate days' stay of inmates.	Total expenditure for maintenance during the year.	Aggregate cost per inmate per day.
			$ c.	Cents.
ndustrial Refuge	Toronto ...	7869	*5507 14	.....
Good Shepherd Refuge for Fallen Women	do ...	17457	10295 34	58.97
Good Shepherd Magdalen Asylum	Ottawa....	36847	8042 66	21.82
Totals 1889		62173	23845 14	.....
" 1888		63493	25327 07	.....

*Expenditure of Aged Women's Home is included in this amount.

SEPARATE REPORTS.

INDUSTRIAL REFUGE, TORONTO.

The following summaries shew the operations of this institution during the year :—

Movements of Inmates.

In residence, 1st October, 1888	20	
Admitted	28	
Total number of inmates		48
Discharged	32	
Died	1	
In residence, 30th September, 1889	15	
		48

Religious Denominations.

Protestant	39	
Roman Catholic	9	
		48

Nationalities.

Canadian	11	
English	13	
Irish	18	
Scotch	4	
Other countries	2	
		48

Places admitted from.

City of Toronto	48	
		48

The revenue of the Asylum, exclusive of the Government grant of $183.88, amounted to $4,073.18, and the expenditures to $5,507.14.

The collective stay of the inmates was 7,860 days, entitling the institution to receive the sum of $157.38 as Government aid for 1890.

Inspection.

A copy of the report made by me to the Government is annexed :—

I made an inspection of the Industrial Refuge, Toronto, on the 29th of July.

There were 17 inmates then in charge, quite a number of whom appeared to be imbecile both mentally and physically.

I found the Institution clean and tidy throughout, and greatly improved in appearance by painting, papering and kalsomining, all of which has been recently done. The books were properly kept.

GOOD SHEPHERD REFUGE FOR FALLEN WOMEN, TORONTO.

The following summaries shew the operations of this Refuge during the year :—

Movements of Inmates.

In residence, 1st October, 1888	45	
Admitted	42	
Total number of inmates		87
Discharged	40	
Died	1	
In residence, 30th September, 1889	46	
		87

Religious Denominations.

Protestant	2	
Roman Catholic	85	
		87

Nationalities.

Canadian	42	
English	13	
Irish	28	
Other Countries	4	
		87

Places admitted from.

City of Toronto	62	
County of York	6	
Other counties and countries	19	
		87

The income of this Charity, exclusive of the Government grant of $361.38, was $9,933.96, and the expenditure $10,295.34.

The collective stay of the inmates was 17,457 days, entitling the institution to receive the sum of $349.14 as Government aid for 1890.

Inspections.

Copies of the reports made by me to the Government are annexed :—

I made an inspection of the Good Shepherd Refuge, Toronto, on the 3rd of May.

There were 47 inmates in charge on the day of my visit, and I saw all of them at their various employments. I found the premises in good order.

I made an inspection of the Good Shepherd Refuge on the 20th September. There were 47 inmates under charge, all of whom were seen to be busily employed.

I found the books correct, the premises in good condition. A structural addition has been made to the institution during the past year, affording increased accommodation.

GOOD SHEPHERD MAGDALEN ASYLUM, OTTAWA.

The following summaries shew the operations of this Refuge during the year:—

Movements of Inmates.

In residence, 1st October, 1888	104	
Admitted	82	
Total number of inmates		186
Discharged	77	
Died	6	
In residence, 30th September, 1889	103	
		186

Religious Denominations.

Protestant	5	
Roman Catholics	181	
		186

Nationalities.

Canadian	108	
English	10	
Irish	59	
Other countries	9	
		186

Places admitted from.

City of Ottawa	110	
County of Carleton	12	
Other counties and countries	64	
		186

The income of this Charity, exclusive of the Government grant of $724.60, was $6,674.78, and the expenditure $8,042.66.

The collective stay of the inmates was 36,847 days, entitling the institution to receive the sum of $736.94 as Government aid for 1890.

INSPECTIONS.

Copies of the reports made by me to the Government are annexed :—

I made the first inspection for the current year of the Good Shepherd Refuge, Ottawa, on the 9th April.

I found that the names of 102 were recorded as inmates of the institution. Owing to the high water during the spring freshet, the grounds about the institution had been submerged, and considerable difficulty had been experienced in protecting the property from injury.

The health of the inmates was not so favorable as on the occasion of my former visit. Quite a number were laid up with malarial fever ; otherwise, I found the institution in its usual condition. No unusual occurrence has taken place since my former visit.

I made an inspection on the 4th of October, and found that there were 91 adults and 12 youths in charge.

The records were in proper order. The inmates were all busily employed, and the institution work was being carried on systematically.

UPPER CANADA COLLEGE.

The Bursar's Statement of Cash Transactions for the Year ending 30th, June, 1889.

Presented to the Legislative Assembly,

By Command,

J. M. GIBSON,
Secretary.

Provincial Secretary's Office,
Toronto, 5th March, 1890.

No. 1.

UPPER CANADA COLLEGE.

The Bursar's Statement of Receipts and Disbursements on "Capital Account" for the year ending 30th June, 1889.

RECEIPTS.	$ c.	DISBURSEMENTS.	c.
Purchase money, "sales of land"	982 52	Balance 30th June, 1888	8493 14
Loans on mortgages repaid	15237 17	Invested in loans, first mortgages on real estate	1412 51
Debentures redeemed—		Balance 30th June, 1889	7599 79
Sandwich $535 00			
Tilbury 258 75			
Nottawasaga 242 00			
Transferred from deposit account *re* Monkman loan 250 00			
	1035 75		
	17505 44		17505 44

J. E. BERKELEY SMITH,
Bursar.

BURSAR'S OFFICE,
TORONTO, 2nd July, 1889.

C. H. SPROULE,
Provincial Auditor.

No. 2.

UPPER CANADA COLLEGE.

The Bursar's Statement of Receipts and Disbursements on "Income Account" for the year ending 30th June, 1889.

RECEIPTS.	$ c.	TO WHOM PAID.		SERVICE.	$ c.	$ c.	$ c.
Balance 30th June, 1888	19684 04		Authority.				
				Bursar's Office—			
Interest on purchase money—sales of land.....	123 16	University of Toronto...	O. C.....	Share of expenses, year ending 30th June, 1889.....	.....	.....	1159 64
Interest on loans on mortgages..	9331 69						
Interest on debentures—less express on coupons.....	5407 53			Salaries—			
Rents	80 00	Geo. Dickson, M.A.	O. C.....	Principal and First English Master, 12 months' salary.....	.....	2600 00	
Tuition fees	16211 80						
Board dues	25670 20	A. Stevenson, B.A.....	Com.....	Second English and Commercial Master, 12 months' salary	.....	950 00	
Transfer and deed fees.....	28 50						
Entrance and Medical fees..... $677 50		H. Brock.....	"	Third English Master, 12 months' salary...	790 00		
		"	"	Supt. Supplementary Boarding House.....	321 67		
Less paid Principal.. 327 00		"	M.	Study work	9 50		
	350 50					1121 17	
Insurance *re* mortgages (*See Statement No. 3*).....	85 96	W. Wedd, M.A.....	O. C.....	First Classical Master, 12 months' salary...	.....	1300 00	
		J. Martland, M.A.....	"	Second Classical Master and Superintendent of Residences, 12 months' salary.....	.....	2300 00	
		W. S. Jackson.....	Com.....	Third Classical Master, 12 months' salary..	1233 34		
		"	"	Supt. Supplementary Boarding House.....	392 00		
						1625 34	
		J. T. Fotheringham, B.A.	M.	Fourth Classical Master, 12 months' salary.	.....	840 00	
		G. B. Sparling, M.A....	"	First Mathematical Master, 12 months' salary	.....	1540 00	
		A. C. MacKay, B.A....	"	Second Mathematical Master, 12 months' salary	.....	1000 00	
		Thomas H. Rogers, B.A.	"	Third Mathematical Master, 12 months' salary	.....	700 00	
		Chas. Whetham, M.A...	O. C.....	First Modern Language Master, 12 months' salary	.....	1487 50	
		Joseph Blackstock, B.A.	Com.....	Second Modern Language Master, 12 months' salary.....	.....	700 00	
		A. H. Young, B.A.....	O. C.....	Third Modern Language Master, 12 months' salary.....	.....	700 00	
		Dr. A. V. Scott	"	Science Master, 12 months' salary	.....	1279 16	
		D. B. Dick.....	Com.....	Architect, 12 months' salary	.....	75 00	

Dr. J. Thorburn	B.	Physician, 12 months' salary		400 00		
H. J. Cody	M.	Assistant Master		15 00		
C. F. McGilliveray	"	" "		30 00		
M. J. Meiklejohn	"	" "		168 00		
Sergt. T. Parr	Com.	Drill Sergeant and Sergeant Playgrounds, 12 months' salary		473 34		
Mrs. Sewell	"	Matron, 12 months' salary		305 00		
Geo. Frost	"	Janitor and Messenger, 12 months' salary		420 00		
W. Chappell	"	Gardener, etc.		416 00		
J. Martland	B.	To pay servants wages, Boarding House		3055 00		
						23500 51
		Prizes—				
Hunter, Rose & Co.	Regulations	Books		193 50		
S. B. Windrum	"	Cup and engraving inscription on same		13 75		
						207 25
		Exhibitions—				
H. R. Kingsmill	Regulations	Allowance		30 00		
K. D. W. McMillian	"	"		10 00		
						40 00
		Fuel—				
T. Bell & Co.	B.	Coal and wood	850 02			
"	"	" "	544 91			
"	"	" "	17 25			
"	"	" "	55 95			
"	"	" "	155 75			
"	"	" "	68 13			
"	"	" "	115 00			
"	"	" "	69 50			
"	"	" "	16 50			
"	"	" "	5 75			
				1898 76		
A. Stevenson	"	" "		3 75		
						1902 51
		Repairs—				
M. O'Connor	B.	Paperhanging, etc.	30 95			
"	"	" "	360 60			
"	"	Whitewashing	83 60			
"	"	"	41 90			
"	"	Painting	13 90			
				530 95		
J. B. Smith & Sons	"	Lumber	6 70			
" "	"	"	16 50			
				23 20		
W. Munroe & Sons	"	Lumber		3 39		
Aikenhead & Crombie	"	Hardware	47 46			
" "	"	"	8 73			
				56 19		
Carried forward	76973 38	*Carried forward*				26809 91

No. 2 —Upper Canada College—*Continued.*

Receipts.	$ c.	To Whom Paid.	Authority.	Service.	$ c.	$ c.	$ c.
Brought forward	76973 38			*Brought forward*			26809 91
				Repairs—*Continued.*			
		R. Dennis & Sons	B.	Carpentering	108 08		
		"	"	"	40 10		
		"	"	"	55 99		
		"	"	"	16 05		
		"	"	"	12 83		
		"	"	"	32 86		
		"	"	"	16 89		
		"	"	"	4 49		
		"	"	"	22 76		
						310 05	
		Wells & Nott	"	Plumbing	86 38		
		"	"	"	35 43		
		"	"	"	23 87		
		"	"	"	14 56		
		"	"	"	24 12		
		"	"	"	32 39		
		"	"	"	7 82		
		"	"	"	8 47		
		"	"	"	10 90		
		"	"	"	6 89		
		"	"	Fitting boilers and testing soil pipes	27 48		
		"	"	" " "	12 50		
						290 81	
		A. G. Peuchen & Co	"	Paints	23 91		
		" "	"	"	16 00		
						39 91	
		T. S. Martin	"	Tinsmith's work	10 15		
		"	"	"	14 05		
		"	"	"	9 82		
		"	"	"	9 60		
		"	"	Putting up stoves	6 95		
		"	"	"	16 90		
		"	"	"	45 37		
		"	"	Repairing furnace	40 85		
						153 69	
		Douglas Bros	"	Repairs to roof	47 61		
		"	"	"	13 60		
		"	"	Iron work	19 80		
						81 01	

Stewart & Wood	"	Paints, oils, etc	11 58			
"	"	"	3 07			
				14 65		
James Oag	"	Repairing bedsteads	3 50			
"	"	"	9 25			
				12 75		
J. Leckie	"	Repairing gymnasium	5 00			
"	"	"	8 75			
				13 75		
Geo. Frost	"	Supplies for repairs, keys, springs, etc	7 25			
"	"	"	9 46			
				16 71		
W. J. Hynes	"	Plastering	2 72			
"	"	"	20 87			
				23 59		
Fox & Co.	"	Lumber		18 82		
Johnson & Brown	"	Repairing reading-room		4 75		
James Foster	"	Repairing bells		18 65		
J. Reynolds & Son	"	Furnace fixtures		61 90		
C. W. Irwin	"	Duty on fixtures		19 10		
Grand Trunk Railway	"	Freight on fixtures		6 00		
E. C. Gurney Co'y	"	Castings		5 75		
G. H. Copping	"	Repairing wringers		3 50		
						1709 12
		Stationery and Printing—				
Hart & Co.	P.	Printing		16 00		
A. L. Maddox	"	Ink		2 00		
Rowsell & Hutchison	"	Paper, etc	43 95			
" "	"	Stamps, etc.	21 65			
" "	"	Printing examination papers	88 05			
				153 65		
Warwick & Sons	M.	Printing forms, etc	64 56			
"	"	" "	254 17			
"	"	" "	9 69			
"	"	" "	11 94			
"	"	" "	13 04			
				353 40		
Rolph Smith & Co	B.	Engraving certificates		60 00		
John Notman	M.	Stationery	56 90			
"	"	"	26 00			
"	"	"	32 45			
				115 35		
						700 40
Carried forward	76973 00	*Carried forward*				29219 43

No. 2.—Upper Canada College—*Continued.*

Receipts.	$ c.	To Whom Paid.	Service.	$ c.	$ c.	$ c.
Brought forward	76973 38		*Brought forward*			29219 43
		Authority.				
		The Globe P.	Advertising—			
		" "	Advertising re opening	5 50		
		" "	" "	20 00		
					25 50	
		The British Whig "	" "		8 50	
		The Telegram "	" "		15 00	
		The Mail "	" "		18 50	
		The Times "	" "		18 00	
		The Empire "	" "		9 00	
		The News "	" "		7 20	
		The World "	" "		13 00	
		J. Ross Robertson "	300 papers containing acc't of New Building.		3 00	
						117 70
			Water and Gas—			
		Water Works Departm't. B.	Accounts	68 76		
		" " "	"	28 50		
		" " "	"	62 82		
		" " "	"	19 00		
		" " "	"	12 83		
		" " "	"	6 30		
		" " "	"	2 70		
		" " "	"	4 73		
		" " "	"	7 88		
		" " "	"	26 48		
		" " "	"	58 11		
		" " "	"	56 08		
					348 19	
		Consumers' Gas Co'y "	Accounts	11 13		
		" " "	"	33 15		
		" " "	"	53 71		
		" " "	"	72 53		
		" " "	"	39 38		
		" " "	"	9 63		
		" " "	"	5 50		
		" " "	"	15 88		
		" " "	"	1 50		
		" " "	"	37 50		
		" " "	"	4 34		

"	"	"	"	"	8 80		
"	"	"	"	"	38 25		
"	"	"	"	"	4 60		
"	"	"	"	"	9 90		
"	"	"	"	"	43 69		
"	"	"	"	"	38 61		
"	"	"	"	"	41 00		
"	"	"	"	"	12 00		
"	"	"	"	"	11 02		
"	"	"	"	"	63		
"	"	"	"	"	24 34		
"	"	"	"	"	5 83		
"	"	"	"	"	2 86		
"	"	"	"	"	3 96		
"	"	"	"	"	33 32		
"	"	"	"	"	26 40		
"	"	"	"	"	21 54		
"	"	"	"	"	7 38		
"	"	"	"	"	1 88		
"	"	"	"	"	4 83		
						625 09	
						973 28	
				Less rebate returned by Gas Co'y		42 77	930 51
				Outfit—			
Glover Harrison Estate			B.	Crockery, etc	19 23		
"	"	"	"	"	10 80		
"	"	"	"	"	6 40		
"	"	"	"	"	24 55		
"	"	"	"	"	8 88		
"	"	"	"	"	29 45		
"	"	"	"	"	75 31		
"	"	"	"	"	13 65		
"	"	"	"	"	8 29		
"	"	"	"	"	7 55		
						204 11	
Aikenhead & Crombie			"	Hardware	26 90		
"	"	"	"	"	8 38		
"	"	"	"	Cutlery	100 30		
"	"	"	"	Carpenter's tools	23 00		
						158 58	
E. C. Gurney & Co.			"	Stoves	81 45		
"	"	"	"	"	13 05		
"	"	"	"	Tinware	10 00		
"	"	"	"	"	11 55		
"	"	"	"	Stewpans	4 95		
"	"	"	"	Castings	10 35		
						131 35	
Carried forward	76973 38			*Carried forward*			30267 64

No. 2.—Upper Canada College—*Continued.*

Receipts.	$ c.	To Whom Paid.	Service.	$ c.	$ c.	$ c.
Brought forward	76973 30		*Brought forward*			30267 64
		Authority.				
			Outfit—*Continued.*			
		John Kay, Son & Co.... B.	Oilcloth	27 30		
		" " .... "	Rug	4 50		
					31 80	
		John Catto & Co..... "	Bedding	109 30		
		" " .... "	Mop flannel	9 56		
					118 86	
		Chas. Rogers & Son's Co. "	Furniture	54 55		
		" " "	"	32 70		
		" " "	"	8 40		
		" " "	"	220 90		
					316 55	
		Toronto Rubber Co'y.... M.	Hose	10 32		
		" " .... "	"	8 25		
					18 57	
		Connor, Webb & Co..... B.	Supports for desks		103 00	
		J. A. Acheson..... "	Seats		30 95	
		T. S. Martin ..... "	Tinware		53 15	
		Johnson & Brown ..... "	Braces for desks		10 25	
		James Adams ..... "	Mattrasses		20 00	
		George Rodwell & Co. . M.	Rubber stamps		28 00	
		Elliott & Co..... "	Chemicals for laboratory		22 94	
		Gwatkin & Son..... "	Printing materials		8 00	
		James Hastings ..... "	Swinging clubs		12 00	
		James W. Queen & Co.. "	Lantern and attachments		168 40	
		T. H. Smyth ..... "	Apparatus to illustrate physics		250 00	
		H. A. Nelson & Sons ... B.	Brooms		3 51	
						1690 02
			Incidentals—			
		Williamson & Co..... M.	Books	2 75		
		" ..... "	"	12 65		
		" ..... "	"	28 26		
		" ..... "	"	9 05		
					52 71	
		J. E. Bryant & Co..... "	"	10 00		
		" ..... "	"	10 00		
					20 00	
		W. K. Colville ..... "	Moving furniture, Mr. Stevenson's house ..		11 37	
		W. S. Robinson ..... B.	Vaccine virus		16 00	

W. Beatty & Son	"		Laying carpet		11 00	
Geo. Dickson	M.		Expenses to Philadelphia, selecting apparatus	20 00		
"	"		Petty disbursements	60 81		
"	"		"	40 00		
					120 81	
Toronto General Hospital	B.		Bill *re* S. Cotter		21 60	
D. S. Barclay	M.		Embossing die		3 00	
Chas. Brown	B.		Cab hire	4 25		
"	"		"	9 00		
					13 25	
Robert Bond	"		"		5 00	
Bell Telephone Co.	"		Messages		4 40	
Geo. Frost	"		Scrubbing College	12 00		
"	"		" "	13 65		
					25 65	
Gagen & Fraser	M.		Photo. of new building		8 90	
Rowsell & Hutchison	"		Books, stamps, etc		37 40	
Hargraves Bros.	"		Chemicals		3 90	
F. Toulmin	B.		Band at games		25 00	
H. R. Alley	M.		Services	100 00		
"	"		"	100 00		
					200 00	
National Manuf'g Co.	B.		Hire of canopy		9 50	
John Kay, Son & Co.	"		Hire of decorations		15 00	
James W. Queen & Co	M.		Chemicals		10 30	
						614 79
			Grounds—			
W. Chappell	M.		Shovelling snow	14 20		
"	"		"	12 90		
"	"		"	26 65		
					53 75	
Duncan Forbes	"		Sand		5 50	
W. Rennie	"		Lawn grass seed		4 25	
						63 50
			Telephones—			
Bell Telephone Co.	B.		Rent of telephone at Principal's House		15 00	
"	"		" " "		15 00	
						30 00
			Pew Rents—			
St. Andrew's Church	B.		Amount of account	100 00		
"	"		" "	100 00		
					200 00	
St. James' Cathedral	"		" "	25 00		
"	"		" "	100 00		
					125 00	
Carried forward		76973 38	*Carried forward*			32665 95

No. 2.—Upper Canada College—*Continued.*

Receipts.	$ c.	To Whom Paid.	Service.	$ c.	$ c.	$ c.
Brought forward	76973 38		*Brought forward*			32665 95
		Authority.	Pew Rents—*Continued.*			
		Metropolitan Church.... B.	Amount of account	32 00		
		" .... "	" "	18 00		
		" .... "	" "	18 00		
					68 00	
		St. George's Church .... "	" "		37 50	
						430 50
			Examiners—			
		D. R. Keys..... Regulations	Fee as Examiner		20 00	
		A. McMechan..... "	"		20 00	
		W. S. Milner..... "	"		20 00	
		J. G. Wilton ..... "	"		20 00	
		T. H. Smyth ..... "	"		10 00	
		G. M. Adam ..... "	"		10 00	
						100 00
			Valuation Fees—			
		G. F. A. Tice ..... Bursar....	Inspection of lots in Township of Seymour.		6 00	
		Chas. King ..... "	*Re* Marshall loan		5 00	
						11 00
			Commission on Loan—			
		W. F. C. Arlidge..... Bursar	S. Campbell loan			6 50
			Law Costs—			
		W. Macdonald..... Bursar	S. Wilson loan	14 00		
		" ..... "	W. Brooks "	1 59		
		" ..... "	M. T. Robinson "	1 04		
		" ..... "	D. Conolly "	1 06		
		" ..... "	Rev. J. Hallewell "	1 06		
		" ..... "	J. Cruickshank "	1 06		
		" ..... "	J. McCannel "	1 06		
		" ..... "	Ira Green	2 61		
		" ..... "	Arcantus Lane	1 59		
		" ..... "	Estate of Geo. Bell	2 10		
					27 17	
			Less received from Jacob Haines 61c., and M. T. Robinson $1		1 64	
						25 53

			Steward's Department—				
		Swan Bros.	B.	Groceries		3501 05	
		J. Norwich	"	Meat		3132 77	
		Geo. Coleman	"	Bread		1183 39	
		Toronto Dairy Co'y	"	Milk		993 90	
		Barton Bros	"	Vegetables		555 47	
		Mrs. W. Bilton	"	Fruit		694 88	
		W. Barrett	"	Potatoes		314 25	
		M. Doyle	"	Fish		330 88	
		C. Richardson & Co.	"	Preserves		554 74	
		W. Burns	"	Ice		56 00	
		W. Kingdon, Steward	"	Petty disbursements		210 00	
							11527 33
				Balance 30th June, 1889			32206 57
	76973 38						76973 38

EXPLANATION OF AUTHORITIES.

O. C. ..... Order in Council.
Com. ..... U. C. C. Committee of Senate.
M. ..... Minister of Education.
B. ..... Board of Trustees.
P. ..... Principal.

J. E. BERKELEY SMITH,
Bursar.

Bursar's Office,
Toronto, 2nd July, 1889.

C. H. SPROULE,
Provincial Auditor.

STATEMENT No. 3.

UPPER CANADA COLLEGE.

The Bursar's Statement of Receipts and Disbursements on account of Insurances *re* Mortgages for the year ending 30th June, 1889.

RECEIPTS.	$ c.	DISBURSEMENTS.	$ c.
E. Cunningham	10 90	John Cameron	3 00
R. Johnson	6 47	W. Coats	3 00
R. H. Scott	7 00	W. J. Turby	33 50
W. J. O'Reilly	4 15	E. Cunningham	5 50
Catharine Peck	6 00	J. B. O'Reilly	10 00
James Newton	7 00	N. Leonard	9 16
James Gardiner	3 00	J. J. Snider	50
John Nightingale	11 25	A. P. Reid	1 00
do	15 30	J. Nightingale	15 30
John Sheik	50	T. Smillie	10 00
John Lacey	6 00	W. E. Durnin	5 00
Neil Leonard	8 10	M. T. Robinson	7 00
do	1 00	Margaret Tully	3 00
J. B. O'Reilly	10 00	T. Ferguson	50
J. Lamont	8 00	J. Cruickshank	1 00
T. Smyllie	10 00	D. Conolly	4 00
A. Campbell	4 00	J. Lacey	5 00
W. E. Adams	11 00	E. McQuillan	10 00
Thos. Ferguson	2 00	R. Cridland	8 00
J. H. Cruickshank	6 50	A. J. Graham	16 00
do	4 45	Balance 30th June, 1889, carried to income account (See Statement No. 2.)	85 96
do rebate allowed	5 55		
M. T. Robinson	7 00		
A. Ballantyne	20 50		
W. J. Turby	33 50		
W. Lucas	3 00		
Thomas Hoyle	2 50		
Geo. Bittorf	3 50		
J. J. Snider	50		
John Fraser	2 75		
E. McQuillan	10 00		
W. E. Durnin	5 00		
Total	$236 42	Total	$236 42

J. E. BERKELEY SMITH,
Bursar.

BURSAR'S OFFICE,
TORONTO, 2nd July, 1889.

C. H. SPROULE,
Provincial Auditor.

STATEMENT No. 4.

Upper Canada College.

The Bursar's Memorandum as to Loans for the year ending 30th June, 1889.

Name.	Amount.
	$ c.
J. W. Cruickshank	184 01
M. McGuire	298 50
S. Wilson	50 00
M. T. Robinson	400 00
M. Campbell	80 00
James Marshall	400 00
Total	$1412 51

J. E. BERKELEY SMITH,
Bursar.

Bursar's Office,
Toronto, 2nd July, 1889.

STATEMENT No. 5.

Upper Canada College.

The Bursar's Statement of Receipts and Appropriations on Deposit Account for the year ending 30th June, 1889.

Receipts.	$ c.	Appropriations.	$ c.
Balance 30th June, 1888	255 63	Paid to R. C. Brown	62 58
R. C. Brown	60 50	do H. M. Cotter	60
John Coates	105 00	Transferred to loans *re* Monkman Ferguson	250 00
		Balance 30th June, 1889	107 95
Total	$421 13	Total	$421 13

J. E. BERKELEY SMITH,
Bursar.

Bursar's Office,
Toronto, 2nd July, 1889.

C. H. SPROULE,
Provincial Auditor.

STATEMENT No. 6.

Upper Canada College.

The Bursar's Statement of Receipts and Disbursements on the "New Building Site" Account for the year ending 30th June, 1889.

Receipts.	$ c.	Disbursements.	$ c.
Balance 30th June, 1889	36382 14	Balance 30th June, 1888	35116 85
		W. Macdonald, costs	312 19
		W. Gorman, compensation for property	800 00
		L. H. Baldwin *re* grading of Clinton street	90 50
		Henderson & Small, surveyor's account	62 60
Total	$36382 14	Total	$36382 14

All payments made on this account were under authority of the Minister of Education.

J. E. BERKELEY SMITH,
Bursar.

Bursar's Office,
Toronto, 2nd July 1889.

C. H. SPROULE,
Provincial Auditor.

STATEMENT No. 7.

Upper Canada College.

The Bursar's Statement of Receipts and Disbursements on the "New Building Account" for the year ending 30th June, 1889.

Receipts.	$ c.	Disbursements.	$ c.
Balance 30th June, 1889	13853 37	Balance 30th June, 1888	279 70
		G. F. Duraud, fees as architect	2000 00
		do revising plans	500 00
		Warwick & Sons, specifications $39 18	
		do do 26 49	67 81
		do forms of tender 2 14	
		W. Macdonald, costs	290 45
		John Herbert, on account of contract	8200 00
		W. C. Mackenzie, clerk of work. $91 00	
		94 50	273 00
		do do 87 50	
		A. Sinclair, levelling grounds. $200 00	
		275 00	
		do do 400 00	1675 00
		800 00	
		The *Irish Canadian*, adve'ng tenders	22 50
Total	13853 37	*Carried forward*	13308 46

STATEMENT No. 7.—*Continued.*

UPPER CANADA COLLEGE.

The Bursar's Statement of Receipts and Disbursements on the "New Building Account" for the year ending 30th June, 1889.

RECEIPTS.	$ c.	DISBURSEMENTS.			$ c.
Brought forward.....	13853 37	*Brought forward*.....			13308 46
		Brantford *Expositor*, advertising.		7 50 7 50	15 00
		London *Advertiser*,	"	15 00 17 00	32 00
		Toronto *World*.	"	22 50 15 00	37 50
		London *Free Press*,	"	12 00 10 00	22 00
		Peterborough *Times*,	"	7 50 12 50	20 00
		Brockville *Recorder*,	"	6 00 6 00	12 00
		Toronto *Globe*,	"	29 20 15 00	44 20
		Woodstock *Standard*,	"	.....	7 15
		Evening Telegram,	"	14 60 10 00	24 60
		Ottawa *Free Press*,	"	10 40 8 00	18 40
		Catholic Record,	"	14 00 10 00	24 00
		St. Thomas *Journal*,	"	7 50 7 50	15 00
		Canadian Freeman,	"	14 20 10 00	24 20
		British Whig,	"	9 45 7 50	16 95
		Woodstock *Sentinel Review*.	"	7 50 8 55	16 05
		News Printing Company,	"	10 00 12 00	22 00
		Grip Printing Company,	"	18 00 15 00	33 00
		Truth Publishing Co'y..	"	.....	7 50
		Mail Printing Co'y.,	"	.....	40 80
		Stratford *Beacon*.	"	.....	15 00
		Guelph *Mercury*,	"	.....	13 00
		Hamilton *Times*,	"	.....	23 00
		United Canada,	"	.....	10 00
		Canadian Agriculturist,	"	.....	16 00
		Paris *Star Transcript*,	"	.....	9 00
		St. Catharines *News*.	"	.....	7 50
		Belleville *Daily Ontario*,	"	.....	19 06
Total	$13853 37	Total			$13853 37

All payments on this account were made under authority of the Minister of Education.

J. E. BERKELEY SMITH,
Bursar.

BURSAR'S OFFICE,
TORONTO, 2nd July, 1889.

S. H. SPROULE,
Provincial Auditor.

STATEMENT No. 8.

UPPER CANADA COLLEGE.

The Bursar's Statement of "Cash Balances" as at 30th June 1889.

ACCOUNT.	DR.	CR.
	$ c.	$
Cash	12 39	
Bank of Commerce overdrawn		14706 59
Capital		7599 79
Income		32206 57
Deposits		107 95
Site new building	36382 14	
Expense account new building	13853 37	
Gratuities	4400 00	
Mason medals		27 00
Total	$51647 90	$54647 90

J. E. BERKELEY SMITH,
Bursar.

BURSAR'S OFFICE,
TORONTO, 2nd July, 1889.

TWENTIETH ANNUAL REPORT

OF THE

ENTOMOLOGICAL SOCIETY

OF

ONTARIO,

1889.

PRINTED BY ORDER OF THE LEGISLATIVE ASSEMBLY.

TORONTO:
PRINTED BY WARWICK & SONS, 68 & 70 FRONT STREET WEST.
1890.

TABLE OF CONTENTS.

	PAGE.
Achroia grisella	72
Actias luna	48
Agassiz, Prof. Louis	78
Agriculture and Arts Act, Amendment to	10, 16
Agrilus ruficollis	51
Agrotis saucia	35
" scandens	35
" subgothica	35
Aletia argillacea	85
American Association for the Advancement of Science	21
American lackey moth	32
" maple moth	49
Anisota senatoria	64
Annual Address of President	2, 21
" Meeting of Association of Economic Entomologists	29
Annual Meeting of Entomological Society of Ontario	2
Annual Report of Council	10
" Statement of Secretary-Treas.	12
Anonomœa laticlavia	52
Ants, caterpillars herded by	93
" how to get rid of	90
Apateta Americana	49
" oblivita	49
Aphomia colonella	73
Apple-tree, flat-headed borer	58
" tent caterpillars	32, 64
Arhopalus fulminans	56
Arsenical insecticides, effect on honey bees	87
Arsenites, experiments with	30, 87, 88
Association of Economic Entomologists	5, 22, 27, 29
Attelabus bipustulatus	64
Australian bug on orange-trees	3, 9
Balavinus rectus	65
Bee-moths	71
Bethune, Rev. C. J. S., articles by	85, 104
Bird murder in France	89
Blackbirds *vs.* Corn Boll-worms	89
Bombycidæ, notes on	93
Book Notice	104
Bot flies	68
Bowles, G. J., In Memoriam	20
Buprestis fasciata	51
Butterflies, a flock of	91
" at Laggan, Alta	7
" breeding from egg	7
" catching with decoys	91
" of Eastern United States.	6
" of North America	6
Calloides nobilis	57
Calosoma calidum	36
Camberwell-beauty butterfly	45
Canadian Entomologist	11, 13
Caterpillars herded by ants	93
" stopping trains	86
Catocala concumbens	50
" parta	50
" ultronia	50
Caulfield, F. B., article by	55
Cephus integer	44
Chionobas Macounii, larva of	19
Chrysobothris dentipes	58
" femorata	58
Chrysomela Bigsbyana	52
" spiræ	52
Cicada septemdecim	62
Cimbex Americana	43
Clarkson, F., article by	93
Clisiocampa Americana	32, 49, 64, 81
" sylvatica	33, 64, 86
Clothes beetle, a new	41
Colaspis tristis	54
Colorado potato-beetle	52
Cook, Prof. A. J., article by	41
Cotalpa lavigera	51
Cotton-worms, loss from	85
Cucumber beetle, remedy for	88
Currant saw-fly, the imported	3, 36
Cut-worms	34
" climbing	35
" remedies for	3, 26
" the glassy	3
Denton, S. W., articles by	91
Diabrotica 12-punctata	54
" vittata	88
Dicerca divaricata	51
Disonycha alternata	53
" punctigera	53
Ecpantheria scribonia	48
Elaphidion villosum	60
Election of officers	15, 16, 27, 29
Entomological Club, A. A. A. S	21
Entozoic pests	69
Ephestia interpunctella	95
" kuhniella	96
Eupsalis minuta	59
Fasciola hepatica	70
Fiery ground beetle	36
Fitch, Dr. Asa	77
Fletcher, J., articles by	31, 32, 34, 36, 38, 95
Flour-moth, the Mediterranean	4, 22, 95
Fluted-scale insect	9
Forest tent-caterpillar	33, 64, 86

	Page.
Fyles, Rev. T. W., articles by..17, 66, 71, 74	
Galeruca decora	53
Galleria cereana	72, 73
Gall insects	32, 44
Gapes in poultry	71
Goding, Dr. F. W., article by	20
Gothic dart moth	35
Graptodera Chalybea	53
Grasses injured by Thrips	22
Grote, A. R., article by	75
Hadena arctica	3, 35
" devastatrix	3
Hagen, Dr. H. A., article by	101
Harrington, W. H., article by	41
Harris, Dr. T. W	76
Hatch Experiment Stations	5
Heat, effects of, on insects	17
Hepialidæ of the Province of Quebec	74
Hepialus argenteo-maculatus	74
" auratus	75
" gracilis	75
" thule	75
Hippobosca equina	67
Holcocera glanduella	65
Hoplia trifasciata	51
Horn-fly	4
Horse bot-fly	68
" flies	66
" tick	67
Hylotrechus colonus	57
Hyperchiria Io	48
Icerya purchasi	3, 9
Insect attacks in 1889	2, 22
Insect Life	5
Larch saw-fly	3, 25, 26, 38
Lasioderma serricorne	41
Lepidoptera and nomenclature	16
Leptura zebra	60
Lepyrus geminatus	54
Limenitis arthemis	46
" disippus	46
Lina lapponica	54
Liver fluke	70
Live stock, creatures affecting	66
Locust carpenter-moth	55
Lucanus dama	51
Magdalis olyra	59
Mediterranean flour-moth	4, 95
Melophagus ovinus	68
Miscellaneous notes	85
Moffat, J. A., article by	83
Nematus Erichsonii	3, 25, 26, 38
" ribesii	3, 36
Oak, insects injurious to the	55
Œdemasia concinna	49
Œneis jutta	7, 18
" Macounii, breeding	7, 19
Orchestes pallicornis	54
" rufipes	54
Orgyia leucostigma	49, 81
Ox bot-fly	68
Pandeletejus hilaris	59
Papilio turnus	38
Parasites, importation of useful	9
Phymatodes variabilis	60
" varius	60
Plum-curculio, remedy for	88
Practical Entomology, rise of, in America	75
Priophorus æqualis	44
Report of Delegate to Royal Society	13
" Librarian	12
" Montreal Branch	15
Samia cecropia	47
Saperda candida	52
" mœsta	56
" mutica	52
Saunders: Insects Injurious to Fruits	104
Saw-flies	42
Scelerostoma syngamus	71
Serica sericea	51
Seventeen-year Cicada	62
Sheep bot-fly	68
" rot	70
" tick	68
Smerinthus excæcatus	46
" geminatus	47
Sparrow destruction in Australia	90
Species, thoughts on determination of	83
Statistics of loss from insects	85
Strawberry saw-fly	43
Stomoxys calcitrans	67
Tabanus atratus	67
" bovinis	67
" lineola	66, 67
Tape-worms	69
Telea polyphemus	47
Thalia univittata	63
Thrips, grass-eating	2, 8, 22
Tiger swallow-tail butterfly	38
Tœnia echinococcus	69
" solium	69
Trichina spiralis	70
Trichiosoma triangulum	43
Urographis fasciatus	58
Vanessa Antiopa	45
Wheat midge	9, 26
Wild bees	42
Willows, insects infesting	41
Winter collecting	31
Wylly, Mrs., article by	93
Xylentes robiniæ	49, 55
Zimmerman, Dr. Christian	101

TWENTIETH ANNUAL REPORT

OF THE

ENTOMOLOGICAL SOCIETY

OF

ONTARIO.

To the Honorable the Minister of Agriculture:

Sir,—I have the honor to submit for your approval the twentieth annual report of the Entomological Society of Ontario, in accordance with the provisions of our Act of Incorporation.

The annual meeting of the Society was held in the city of Toronto on the 3rd of September, 1889, when the officers for the ensuing year were elected and the necessary business of the Society was transacted. A report of the proceedings, together with the audited statement of finances, is herewith submitted.

The President's address and the papers on Economic and General Entomology included in the report, will be found, it is believed, of much interest and value by all who are intelligently engaged in farming or horticulture.

The Society's monthly magazine, *The Canadian Entomologist*, has been regularly issued during the past year, and has just completed its twenty-first volume. It continues to maintain its high reputation as a valuable scientific publication and to attract the contributions of the most eminent Entomologists of North America.

I have the honor to be, Sir,

Your obedient servant,

W. E. SAUNDERS,
Secretary-Treasurer,

ANNUAL MEETING OF THE SOCIETY.

The annual meeting of the Society was held in a lecture room of the new Biological Building of the University of Toronto on Tuesday, September 3rd, 1889. The President, Mr. James Fletcher, of Ottawa, took the chair at 11 o'clock a.m. The following members were present: Mr. E Baynes Reed and Mr. J. M. Denton, London; Mr. J. Alston Moffatt, Hamilton: Dr. Brodie, Dr. White, Masters O. and W. White, Mr. Gamble Geddes. Mr. A. Blue (Department of Agriculture), Toronto; Rev. C. J. S. Bethune, Port Hope; Mr. W. H. Harrington and Mr. R. Bell, Ottawa; Mr. H. H. Lyman, Montreal; Rev. T. W. Fyles, Quebec; Rev. W. R. Burman, Winnipeg; Mr. L. O. Howard, Assistant Entomologist, Department of Agriculture, Washington.

The minutes of the previous meeting having been printed and circulated among the members, the reading of them was dispensed with, and they were duly confirmed.

The President then delivered his annual address in which he referred especially to the chief insect attacks of the year.

ANNUAL ADDRESS OF THE PRESIDENT.

Gentlemen,—The present year has been one of great scientific interest in Canada. The event of greatest importance is, of course, the meeting of the American Association for the Advancement of Science, the participation in which we have just enjoyed. This has given us an opportunity of meeting personally many of the leading Entomologists of the country, who have long been known to all of us through their writings. The late deliberations of the entomological and botanical clubs have been of exceptional interest, and I feel proud that the members of our society should have taken so active a part in making these meetings successful.

Since I last had the honour of addressing you, the ravages of various kinds of injurious insects have demanded our attention. I will briefly draw your attention to some of these, so that there may be some discussion to-day upon the habits of the insects causing them, and thus what have been found to be the best remedies in the experience of those who have investigated them will be brought out. We discussed last year the injuries of the grass-eating thrips (*Phlœothrips poaphagus*). Continued observations during the past summer have shown that this insect is very widespread, and that although its attacks occasionally occur on other grasses, they are chiefly confined to June grass (*Poa pratensis*) early in June, and later in the month, to timothy (*Phleum pratense*). This attack is always most severe upon old meadows, and for the present the only remedy we can suggest is the ploughing up of those areas and laying them down to some other crop. Oats in central Ontario have been severely attacked by another yellowish species belonging to the Thripidæ. This insect has been submitted to Mr. Pergande, through the courtesy of the United States' Entomologist, and declared to be an undescribed species. The injury was perpetrated by the perforation and abortion of the oat flowers just before they left the sheath, by which they turned white,

and faded without coming to maturity. Later the insects were found beneath the chaff of the oats, from which they were eating the green matter. In badly infested fields, they could be shaken from the heads of grain in large numbers. The same, or a similar species, was also found in smaller numbers in wheat. During the spring, serious complaints were made in all quarters of the injuries by cutworms. Fall wheat was badly attacked by the larvæ of the glassy cutworm (*Hadena devastatrix*). This is a dirty white caterpillar with a bright red head, which attacks many kinds of plants, but particularly the different kinds of grasses, upon the roots of which they feed. Owing to the long, cool and damp spring, the season for these injurious caterpillars was very much protracted. Some of the caterpillars of different species being found as late as the end of July. The perfect moths of *Hadena devastatrix*, *H. artica* and *Agrotis clandestina* were very abundant, and flew right through the summer from July to October. As remedies for cutworms I have nothing to add to the suggestions I made last year. Keeping down all weeds in late summer and autumn, and late ploughing in autumn seem to be the best agricultural remedies. Of active remedies, the use of poisoned traps was tried carefully during the past season, and found very successful, particularly in gardens. These traps consist of loose bundles of any succulent vegetation, which must be tied together and then dropped into a strong mixture of Paris green and scattered over the land three or four days before the crop is planted out or appears above the ground. This remedy is sometimes condemned owing to the fact that when caterpillars have eaten the poisoned food they burrowed a short distance beneath the ground and died out of sight. Other insects which have been more or less injurious are the root maggots, which attacked onions, radishes and cabbages early in the season. I have received reports of the successful treatment of these insects with a solution of hellebore, and I mention it now with a suggestion that it should be tried by our members next spring.

The larch saw-fly (*Nematus Erichsonii*) was very abundant in the neighborhood of Ottawa, and in fresh districts in the Maritime Provinces; the tamarac swamps being rendered almost leafless for hundreds of acres.

The imported currant saw-fly (*Nematus ribesii*) was a troublesome pest right through the season until after the fruit was ripe. This was largely, I think, due to the unusual season, not only were some individuals of each brood retarded, but the frequent rains washed off the poison applied to the bushes almost as soon as it was put on.

During the past summer I had the great advantage of paying a visit to Washington, where I had the pleasure of meeting the entomologists of the Department of Agriculture and examining the working of the division of entomology. During this enjoyable visit I was treated with the greatest courtesy and hospitality. The magnificent collections were thrown open to me, and the working of the different kinds of machinery for checking the attacks of insects was explained.

With regard to the work of this important division of the Department of Agriculture, there are some experiments now being carried on under the direction of the entomologist which are of enormous importance to the country. These have been undertaken with the object of introducing the different parasites of the injurious Australian bug (*Icerya purchasi*), which is working such terrible havoc in the orange groves of California. By the latest advices these efforts have been attended with remarkable success, and a small coccinellid beetle has been introduced which is quickly clearing the orange trees of their pernicious parasites. Should nothing happen to change this state of affairs, this will be one of the most important experiments which has ever yet been tried in economic entomology.

The attacks of injurious insects in the United States are of course of great interest to us in Canada, not only on account of our own liability to suffer from the same species, but also from the benefits we derive directly from the labours and experience of the large staff of trained economic entomologists at work in the Union, who immediately investigate any new attack upon its first appearance. Although from time to time there occur serious outbreaks of injurious insects, most of these conform in their main characters to attacks which have already been studied carefully, and for which remedies based upon broad, general principles can be applied. Frequently, however, new pests appear and demand prompt action, but concerning the habits and treatment of which nothing is known. An outbreak of this nature which has not yet been observed in Canada, but which has lately attracted much attention in the agricultural press, is by a small fly, known as the Horn Fly, which is a fly belonging to the Stomoxis group of the *muscidae*. The mature insect, which is about half the size of the ordinary house fly, is very troublesome in worrying cattle in the pastures. The name of horn fly has been given to this insect on account of a habit exhibited early in the season of clustering in large numbers, when at rest, upon the horns of cattle, particularly at night. During a recent visit to Washington I had an opportunity of accompanying Mr. L. O. Howard upon an expedition into Virginia, to investigate the habits of this insect. We found it in large numbers upon cattle at Calverton, Virginia. The animals were considerably reduced owing to the attacks of their innumerable enemies, which worked their way down between the hairs and sucked their blood. The bite of these flies seems to cause much irritation, for some of the cattle had rubbed themselves against trees or licked themselves where bitten until they had large bare, or even raw spots, in some instances, of several inches in extent. Mr. Howard has succeeded in working out the complete life-history of this insect from the time the egg is laid upon freshly dropped cow-dung to maturity. He finds that the growth from the egg to the perfect insect is very rapid, only twelve days being required for it to pass through all its stages from the time the egg is laid. At page 60 in Vol. II. of "Insect Life," an account of the work of this insect is given, with the best remedies. These are: (1) thoroughly liming the droppings in places where cattle preferably stand at night, so as to kill off the larvæ, or (2) remedies for the protection of the animals from the attacks of the fly. Three applications for this purpose are suggested. (1) Fish oil and pine-tar with a little sulphur. (2) Tobacco dust when the skin is not broken. (3) Tallow and a small amount of carbolic acid. The last application, it is stated, will have a healing effect where sores have formed. This attack was first noticed on the coast in New Jersey, where it has been studied by Prof. J. B. Smith, who has found the tobacco dust the most successful remedy. From New Jersey the attack has gradually spread through Pennsylvania, Delaware, Maryland and North Virginia.

Another attack by an insect hitherto unknown on this continent, is a serious occurrence in Canada of the Mediterranean flour moth (*Ephestia Kühniella*), which was probably introduced from Europe in small numbers some two or three years ago, and being unnoticed has been allowed to increase to such an extent that one large mill has been actually obliged to shut down on account of the caterpillars spinning their webs in the machinery and infesting the produce. This outbreak of a serious pest which has been known to be the cause of much damage in Europe, has caused much apprehension lest it should spread to our large mills, and means are being taken in the city where the mill is located to stamp it out thoroughly. The only literature upon this subject which I have been able to find, is the last valuable report of our esteemed corresponding member, Miss E. A. Ormerod, who details some occurrences of the insect in mills in England. The means there adopted were, to clean and wash the mills as thoroughly as possible, and then to

subject every part of them which was accessible to a jet of steam. It was found that when the caterpillars were disturbed they would let themselves down by a silken thread and again return after the disturbance ceased, but that when the disturbance was of a moist nature, the silken thread was not made. The means I have suggested in Canada for stamping out this pest are, to brush down the mill as thoroughly as possible, and then subject every portion to a spraying of kerosene emulsion or gasoline. This latter is, of course, a very inflammable substance, and great care must be taken in its use; but judging from statements made by those who have used this liquid as an insecticide in similar instances, the results, I believe, should be satisfactory, and if proper care be taken, there should be no danger in its use.

Amongst the important aids to the work of the economic entomologist, special notice is demanded by that most useful publication, "Insect Life," which is issued from the division of entomology by the United States' Department of Agriculture. This magazine is under the able joint editorship of Messrs. C. V. Riley and L. O. Howard, and owes its great utility alike to the skill the editors exhibit in presenting the information they have to impart to their readers, as to the exceptional opportunities they have for obtaining it from authoritative sources. In this publication we have prompt notice of serious outbreaks of injurious insects wherever they may occur in the United States or Canada, and also suggestions as to the best remedies. We have, too, articles and monographs upon various subjects connected with the work of the entomologist. A series of articles upon spraying apparatus gives, in a concise form, much valuable information by which a great deal of useless trouble and expense will be saved to farmers and students experimenting in the selection and use of these necessary instruments.

A subject of particular interest to our members is the lately formed Association of Economic Entomologists, which was organized during the late meeting of the American Association for the Advancement of Science, in this city.

The association will, it is hoped, be a means of bringing together at least once a year most of the entomologists who study particularly the practical application of the science, so that they may become acquainted personally with each other, and may hear of the investigations which each is carrying on, to exchange experiences and discuss the best methods of work so as to obtain as quickly as possible efficient, simple and cheap remedies for controlling the operations of the many injurious insects whose attacks so materially reduce the revenue of the country.

The circumstances which led up to the formation of this association are briefly as follows: While it is true that the investigation of all the natural sciences on this continent has always had a more practical turn than in Europe, this is particularly true of entomological studies, and the literature of American economic entomology has now become so large as to make a bibliography an urgent necessity.

The cause of practical science has lately received a great impulse from the passing, by the United States Congress of the "Hatch Experiment Stations Act." This Act provides that an annual sum of $15,000 shall be set aside for each State in the Union for the promotion of agricultural science. By virtue of this Act there have already been organized upwards of 60 government experiment stations in various parts of the Union, and of these no less than 27 have their entomologists. There is no doubt that before long the directors of many of the other stations will see the advisability of appointing entomologists on their staff. The effect of this measure will be, that there will be a large number of trained entomologists scattered over a large area, and all working at the same important

problem, of obtaining practical remedies for injurious insects—now whilst these men are all working independently, as a matter of course there must be a great duplication of work, and useless experimentation. The idea was promulgated that if an association were formed, by which economic entomologists would have an opportunity of meeting and discussing matters of mutual interest, that good results must follow. In the January number of "Insect Life," an editorial note appeared, asking for the opinion of entomologists upon this matter. Having thought the matter over carefully, I considered it of such importance that I made it the chief subject of my presidential address before the entomological club of the American Association, and begged the members to discuss whether the time were not ripe for the formation of a permanent organization. As a result of this appeal, the club resolved itself into a special committee and drew up and adopted a constitution and elected officers for the current year, as follows: President, Prof. Riley; Vice-President, Prof. Forbes; and as Secretary, Prof. J. B. Smith. This association is for all who make a specialty of economic entomology, and as constituted at present, consists of all who hold official positions as entomologists to governments, states or associations, or workers in practical entomology who may have applied for membership and been elected.

Several important publications on entomology have appeared during the past year. Mr. Scudder's magnificent work on the butterflies of the Northern United States and Canada is almost completed. The regularity with which the parts have been delivered to the subscribers upon the day of issue, has been a pleasing feature. The care shown in the preparation of the systematic work, and the large amount of new material given to the scientific world, makes this publication an important landmark in the study of diurnal lepidoptera. With regard to many of the points upon which Mr. Scudder was known to differ from the majority of entomologists, it must be acknowledged that his views have been put forth in an honest, straightforward manner, which has found him many adherents. No question of importance has been shirked or slurred over, but all are treated of fully and fairly, and we have no doubt that when the work is completed, Mr. Scudder will be ready to discuss with all who may wish to do so, any subjects, the clearing up of which will be of use to science. One of the valuable features of this work is the appendix, consisting of an article upon the parasites of butterflies, The hymenoptera are by Mr. L. O. Howard, Assistant United States Entomologist, and the diptera by Dr. Williston. It is not necessary to more than mention the names of these gentlemen to assure the quality of this part of the work.

Mr. W. H. Edwards continues to publish his superb "Butterflies of North America," and each succeeding part exceeds in value and excellence of the plates those which have preceded it. During the past year Mr. Edwards has continued his studies in breeding butterflies from the egg, with the most remarkable success We trust that he may long be spared to carry on his valuable investigations, and give them to the world through the pages of the "Butterflies of North America." It may not be amiss, however, to remind entomologists that this is an extremely costly work to issue, and that the author has had to dispose of his large collections and a number of his books to enable him to continue the publication. I cannot help thinking that it is the duty of every entomologist who can afford to do so, to help this work to the extent of subscribing for it.

I have said that Mr. Edwards's success this year in breeding butterflies has been remarkable. This success has been largely contributed to by a gentleman in Canada, Mr. T. E. Bean, who has been living for some time at Laggan (Alta) in the Rocky Mountains. He is a most energetic collector and successful breeder

of insects. During the past summer he has sent to Mr, Edwards and myself the eggs of so many butterflies of exceptional rarity, and in such numbers, that I consider it no exaggeration to say that he has helped on the study of the preparatory stages of butterflies more than anyone else in Canada. Amongst the rare species of which eggs were sent by Mr. Bean, I will mention the following: *Colias Elis, Colias Christina, Colias Nastes, Colias Interior (?), Parnassius Smintheus, Œneis Jutta* and *Melitæa Anicia.* Mr. Bean's collections in the Rocky Mountains have also added largely to our knowledge of the geographical distribution of many of our insects of various orders.

Perhaps one of the most interesting points, scientifically, which has been discovered by Mr. Bean, is the positive knowledge that insects of the genus Colias will feed upon plants outside the order leguminosæ. I had myself suggested in our last year's report, from observing *Colias Interior* in nature, that they might feed upon species of *vaccinium* or "blue berry"; but Mr. Bean has discovered that not only is *vaccinium myrtifolius* the food-plant of *Colias Interior,* (or a closely-allied species), but that *Colias Nastes* feeds naturally on willow, although it is true it will eat *Hedysarum boreale,* a leguminous plant. It eats this, however, apparently without relish, for of 15 young larvæ which hatched from eggs sent to me by Mr. Bean, only two fed on the *Hedysarum,* and this only after eating nothing but their egg shells for two days.

Another gentleman who has assisted materially in this interesting work of breeding butterflies, is Mr. David Bruce, who has spent the summer in Colorado. He has sent Mr. Edwards eggs of many rare species, and I have myself, at Ottawa larvæ bred from eggs that were sent by him inside letters from the mountain tops of Colorado. In our last report I referred to some experiments in breeding *Œneis Macounii.* Of several young larvæ which hatched from eggs collected at Nepigon, but one passed successfully through the winter; but this one, by its behaviour, raises a point of considerable interest. The perfect insect occurs at Nepigon in the last week of June, so that the caterpillars would probably pupate about the end of May. The specimen which I carried through the winter was only at that time (the end of May), half an inch in length, and had only moulted twice, once in autumn and once in spring. Full growth was not attained until the end of July, when I had a figure made, through the courtesy of the United States Entomologist, which has appeared in the pages of "Insect Life," with an account of the full grown larva. From that time until the present, although the caterpillar eats a little, it is decidedly getting smaller, is paler in colour, and is very sluggish—in fact it has every appearance of going into hibernation. An interesting feature of this life-history, as illustrated in this specimen, is the probability of a second hibernation. The only person as far as I know who has succeeded in breeding a species of this genus, is the Rev. T. W. Fyles, of Quebec, who bred *Œneis Jutta* from eggs laid at Quebec in the beginning of June. The larvæ passed through all their stages and hibernated full grown, and the perfect butterflies emerged in May of the following year. On the other hand, larvæ from eggs laid by the same species at Ottawa only a month later, both with Mr. Scudder at Boston and Mr. Edwards of West Virginia, as well as with me at Ottawa, behaved in exactly the same manner as the larvæ of *Oe. Macounii* from Nepigon, they passed only one moult and then hibernated in the second stage, and had all their growth to make the next year, This was also the case with larvæ from Rocky Mountain eggs of *Jutta* sent by Mr. Bean during the past summer. This points to a dual habit in the same species, which, if regular, is of great interest, and reminds one of what is known to be the case in the arctic regions where, probably on account of the uncertain climate, many species of genera which normally pass through all their stages in one year, there take two or even more before they arrive at maturity,

In the line of economic entomology, several reports, bulletins and papers have appeared since I last had the honour of addressing you, from the United States Entomologist, the State Entomologists of Illinois and New York, and from the various experimental stations and agricultural colleges in the United States.

Useful articles upon many insects which occur in Canada, have been issued officially in Indiana, Michigan, Nebraska, Ohio, South Carolina, New Jersey, Iowa and Kansas. These sources of information are, of course, of great interest to us, and we must be grateful for the frequent opportunities we have of benefitting from the experience of our friends to the south.

Before closing, I wish to bring one other subject under your notice for discussion. I have here some figures which have been executed direct from a photograph, which was taken at Ottawa by Mr. H. N. Topley, by the new isochromatic process, sent to New York and engraved by the Moss Engraving Co., and in less than a week the blocks were sent back to Ottawa ready for use. In this way great accuracy is assured without the much larger expense necessary when figures are drawn by an artist and then afterwards engraved. Figures are a great help in placing before our readers an intelligible idea of the insects we speak of in our reports; therefore it is an important consideration to get as many as possible, if they can be done accurately. Unluckily for natural history, such artists as Mrs. Comstock, Prof. Riley and his assistants, Miss Sullivan and Dr. Marx, are very scarce; but I am of the opinion that the process I have mentioned will, in a large measure, meet the difficulty under which we labour for the present.

And now, gentlemen, I beg to remind you that I have for three years presided over your deliberations. I trust that the influence and utility of the society may have increased during that time. It has been my endeavour to develop particularly the practical aspects of our studies, and I hope I may have succeeded in some measure; but I am strongly of the opinion that three years is long enough for any one person to hold the office of chief executive officer, and as the old adage "a new broom sweeps clean" is as true of entomology as of everything else, I must beg you, for the good of the society, to elect some one else to fill the important office of president for the ensuing year. I thank you all for your confidence, assistance and advice during my tenure of office, and beg you to allow me now to retire again to the ranks, where I shall always consider it an honour to work for and do my utmost to keep up the honorable position which has been won by the Entomological Society of Ontario.

Your obedient servant,

JAMES FLETCHER.

A cordial vote of thanks for his able and interesting address was unanimously voted to the president on motion of Dr. Bethune, seconded by Mr. Reed.

In the discussion which followed, Dr. Brodie stated that he had found several cereals injured by thrips; he discovered what were probably the larvæ of thrips feeding under the sheath on culms of grass, but when kept over night no specimens were to be found in the morning. He and Professor Wright had examined the insects and came to the conclusion that they were thrips. The larvæ were exceedingly difficult to mount for the microscope; if preserved in balsam they soon faded out and became useless, but better results followed the use of glycerine. He was satisfied that there are two broods in the year, the first being early in

the season. This year, owing to dry weather, they were very abundant in waste places, and he found about one-half of the timothy destroyed by them. After the rain set in, the injury was very much reduced.

Mr. Geddes spoke of some variations in size that he had observed in the common yellow butterfly (*Colias philodice*), and expressed his opinion that the large specimens fed on clover, and the small on lucerne.

Mr. Howard, of Washington, gave an account of the success which has attended the efforts of Dr. Riley and his assistants to introduce parasites of the fluted-scale insect (*Icerya purchasi*, Maskell), a very destructive creature, in California. This noxious insect has appeared very suddenly in the State, from no one knew where. Experiments were made upon it, and remedies proposed, but the cultivators did not seem to care to make use of them on their plantations. They then set to work to learn its life-history, and soon found that it came from Australia. They corresponded with Mr. Frazer S. Crawford regarding it. He found the insect in Australia, but it was not at all abundant. They concluded, therefore, that it was kept in check by parasites. A dipterous parasite was found by Mr. Crawford. Their next proceeding was to send Mr. Koebele to Australia. He found the insect everywhere, and observed that it was very commonly parasitized. He then sent over about 15,000 living specimens of parasites. They were liberated at Los Angeles. He also found a lady-bird (*Vedalia*) feeding on the scale insect, and sent several thousand of them. The result has not been satisfactory with the dipterous parasite, as it breeds too slowly, but one of the species of lady-birds breeds most rapidly, and will no doubt keep the pest within due bounds.

As an instance of this, he mentioned that 400 lady-birds were sent to one planter, Colonel Dobbins, in May last; he thought from their satisfactory work that his orchard would be free from the pest by the close of the summer, but he afterwards wrote to say that on the 15th of August there was not one living scale insect left. The experiment had been entirely successful. Mr. Howard also referred to the importation of the parasites in 1883 of the cabbage-butterfly (*Pieris rapae*).

Dr. Bethune gave an account of his attempt to import from England many years ago the parasites of the wheat midge, and of the failure of the effort.

Dr. Brodie was strongly of opinion that noxious insects should be fought by means of parasites; that this was the true scientific method, and that the use of poisons was a grave mistake. He was very much gratified with the account of the methods adopted at Washington, and hoped that they would be developed to the utmost.

Mr. Fletcher in reply said that we could not possibly ignore the great value of poisons as remedies against noxious insects; that it was absolutely necessary to use them until we can depend upon the parasites; and that even if we had the parasites at work upon our destructive insects, they might at any time be swept away through a mildew or blight, and we should be left at the mercy of the enemy. He had been in correspondence with Mr. Whitehead in England in order to procure the parasites of *Diplosis*, but unfortunately this gentleman was ill and unable to carry out the project. He had found nearly all the specimens of scale insects *Aspidiotus* sent to him from British Columbia were parasitized, but had never found one affected in this way in Ontario.

Dr. Brodie thought that the farming community could never be brought to adopt scientific methods for the protection of their crops till they had suffered from a sweeping destruction. He referred, as an example, to the ravages of the wheat midge some years ago. In the county of York it wrought so much havoc that

the wheat fields were deserted and left to the cattle. A day's threshing would produce two bushels of midges and no grain. When their crops were all destroyed then they were willing to resort to remedies, chief among which were the employment of "midge-proof wheat" for seed, a judicious rotation of crops, and planting too early or too late to suit the habits of the midge. The introduction of new varieties of wheat was the principal means of getting rid of the pest. He wished that the farmers might lose all their potatoes, in order that they might be led by this severe lesson to give up the use of Paris green, and adopt scientific means of saving their crops.

After some further discussion, in the course of which the value of various poisons, such as arsenical preparations, hellebore, kerosene, etc., in checking insect ravages was insisted upon, the subject dropped.

Dr. White exhibited to the meeting some cheap wood-cuts in outline, of botanical subjects that were used in illustration of popular articles in "School Work and Play," and recommended that something similar should be done in order to popularize entomology. He said that specimens were first photographed upon zinc plates instead of glass, and in this way, by a special process, blocks were prepared for the printer at a very trifling expense. The project was heartily approved of, and it was agreed on all sides that much valuable instruction might be disseminated in this way.

Mr. Burman related his experience of injury to cattle and dogs by flies in the North-west, and asked whether fish-oil would be a remedy. In reply Mr. Fletcher and Mr. Howard stated that fish and other oils and greases were effective both in keeping off the flies and healing the affected parts.

The meeting then adjourned till the afternoon.

AFTERNOON SESSION.

The report of the council, the audited financial statement of the Secretary-Treasurer, and the report of the Librarian were presented and read to the meeting, and, on, motion, were duly discussed and adopted.

REPORT OF THE COUNCIL.

The Council submit herewith their annual report.

The progress of the Society still continues, and the increased membership and the demand for materials for collections, evidences an encouraging activity among the workers in entomological pursuits, and affords good hope of satisfactory results.

During the year the Council found it necessary to obtain some alteration in the clauses of the Ontario Agriculture and Arts Act relating to the Entomological Society.

Through the kindness and courtesy of the Hon. the Minister of Agriculture the following amendment to the Act was passed:

"Section 67 of the said Act is amended by adding thereto, after sub-section (2), the following: 'Provided, however, that the Entomological Society of Ontario

shall, at its annual meeting, group into five divisions the Agricultural Divisions enumerated in Schedule A to this Act, and shall elect one person from each of such five Divisions (who shall be a resident of the Division he represents) as directors of the said Society."

The *Canadian Entomologist* is still published with regularity and promptness, and maintains its well-earned reputation. As intimated in the report of last year, papers on economic and popular entomology have been published from time to time as opportunity afforded, and it is intended to continue these papers as occasion requires.

The library has been well looked after, and further book case accommodation provided. Some 65 volumes have been added during the year, among them may be mentioned the final volumes of the Encyclopædia Britannica and 3 volumes of the Report of the Challenger.

Special reference must also be made to the splendid edition of Mr. S. H. Scudder's "Butterflies of New England and Canada," of which 10 numbers have at this date been issued and received.

In continuance of the work already begun during the previous year, the Council has had the Coleoptera carefully gone over and the drawers repapered and rearranged.

In this connection the Council desires to express its recognition of the valuable services of Mr. J. Alston Moffat, of Hamilton, Ont., who devoted much time and attention to this necessary work.

The hearty thanks of the Society are also due to Mr. Moffat, and Mr. J. Johnstone, also of Hamilton, and to other contributors, for many generous donations of fresh specimens for the cabinets of the Society.

Through the valuable assistance of Mr. W. H. Harrington, of Ottawa, the Society has been able to issue a revised list of Canadian Coleoptera.

Pursuant to established custom a deputation from the Society was sent to attend the meeting of the Entomological Club of the American Association for the Advancement of Science, held at Toronto. The President, Mr. Jas. Fletcher; the Vice-President, Mr. E. Baynes Reed, and the Rev. C. J. S. Bethune, the Editor of the *Canadian Entomologist*, attended the meeting. A report of the proceedings will be published in the columns of the *Entomologist*.

The Rev. Dr. Bethune was elected Vice-President of the Club.

The report of Mr. Lyman, the delegate to the Royal Society, is presented herewith.

The accounts have been duly audited and will be submitted as usual.

Respectfully submitted on behalf of the Council.

W. E. SAUNDERS,
Secretary-Treasurer.

ANNUAL STATEMENT OF THE TREASURER.

Receipts, 1888-9.

Membership Fees	$239 19
Sales of *Entomologist*	63 19
Pins, cork, etc.	108 05
Advertisements	10 13
Government grant	1,000 00
Interest	5 38
Balance from last year	222 46
	$1,648 40

Expenditure, 1888-9.

Printing	$651 27
Report and meeting expenses	170 81
Library	141 56
Cabinet expenses	139 90
Expense account (postage, express and stationery)	52 32
Rent	80 00
Insurance	35 00
Grants to Editor, Secretary and Librarian	175 00
Cork, pins, etc	80 81
Balance	121 73
	$1,648 40

REPORT OF LIBRARIAN AND ACTING CURATOR.

I submit herewith my report as Librarian and acting Curator of the Entomological Society for the year ending August 31, 1889.

The number of volumes now on the catalogue is 1,052, of which 65 were added during the year.

The volumes of the Encyclopædia Britannica have been completed, and the Report of the Challenger includes to date 20 volumes now in the library.

In accordance with the suggestion of the Council a new book case has been procured, and accommodation provided for some years to come.

The room has been papered, and the book cases stained, and store cases painted.

The books are in good order.

The cabinets of Coleoptera have been rearranged and the drawers repapered and much good work done by Mr. J. A. Moffat.

The *Canadian Entomologist* has been regularly issued and mailed.

Respectfully submitted.

E. BAYNES REED.
Librarian.

Mr. Moffat called attention to the large amount of work and the great care which Mr. Reed had bestowed upon the library during many years past, and of the excellent position into which it was now brought. He moved that "the thanks of the Society be given to Mr. Reed for his services in the library, and that the Executive Committee be hereby recommended to consider the possibility of shewing in some pecuniary way their recognition of his labours."

Mr. Geddes, in seconding the resolution, which was duly carried, referred in warm terms to Mr. Reed's efficiency and kindness in connection with the library. It was suggested in the discussion that followed, that a catalogue of the books should be prepared, and that by-laws should be framed for the proper regulation of the library and the issue of books to the members of the Society.

Mr. Denton said that there were now about eleven hundred volumes in the library, many of them being very rare works on entomology and other departments of science. He thought it most desirable that members out of London should be enabled to know what books there were and under what conditions they might borrow them.

Dr. Brodie spoke of the great importance of having a complete catalogue made of all the libraries in Ontario, and said that he considered it a work that might very well be undertaken by the Provincial Government.

Mr. Reed thought that we were still in too crude a state to publish a catalogue of the Society's library, but we might make a beginning by issuing lists of the books in its different departments. It was finally agreed to leave the matter in the hands of the librarian.

Mr. Lyman read his report as delegate to the Royal Society of Canada, and the report of the Montreal Branch of the Society.

REPORT TO THE ROYAL SOCIETY OF CANADA.

As delegate from the Entomological Society of Ontario, it is again my duty to submit a brief report of the work of the Society during the past year, and I have much pleasure in saying that the Society continues to prosper under the fostering care of the Government of Ontario.

The monthly journal of the Society, the *Canadian Entomologist*, under the able editorship of the Rev. Dr. Bethune, of Port Hope, first claims attention on account of the important position which it holds among the scientific publications of the continent.

The volume for 1888, which is the twentieth volume, consists of 240 pages of reading matter, the contributors numbering 33, and many of the articles being of much interest. In addition to those by our own Canadian members, there were articles sent in from active workers in 14 States of the American Union, from Florida in the south to Michigan in the north, and from Massachusetts in the east to California in the west.

Among the most important papers published in the volume were a number on the preparatory stages of the various insects, including the complete life histories of twelve species of lepidoptera, besides partial descriptions of those of several others.

The volume also contains the descriptions of four new genera and fifty-six new species of various orders.

In the 21st volume now publishing, there is appearing a series of papers upon "Popular and Economic Entomology," which the Council believe will be of value to the fruit growers, farmers and gardeners of the country.

The annual report of the Society to the Minister of Agriculture of Ontario, for 1888, has been published, and contains, in addition to the usual report of the annual meeting of the Society, many interesting papers. One of the most important of these is the account by our President, Mr. Fletcher, of his last year's trip to Nepigon, whither he went for a week at the beginning of July, accompanied by Mr. S. H. Scudder, an associate member of the Society, and one of the most eminent entomologists of America, for the express purpose of obtaining the eggs of various species of butterflies. The expedition was very successful, eggs being obtained from no less than seventeen species and varieties.

At the annual meeting of the Society it was found that the finances were in such a satisfactory state as to render possible the voting of the handsome sum of $200 to the library fund for the purchase of books and the binding of periodicals and pamphlets.

The library now contains upwards of a thousand volumes, chiefly on entomology, but also many on the other departments of Zoology and on Botany.

An important move has recently been made in opening the rooms of the Society to visitors at regular stated times in order to popularize the work of the Society as much as possible.

The Society's collections of coleoptera and lepidoptera have been carefully rearranged during the year by Mr. J. Alston Moffat, of Hamilton, a member of the Council, and now form standard reference collections of these insects of Ontario.

The Montreal branch, I am happy to say, continues in active existence, Regular monthly meetings are held, and increased interest is being taken in the study of this science.

During the past year great activity has also been shown by many of the associate members of the Society, and several very important and useful works have been issued by them. The most important of these is Mr. Scudder's sumptuous work on "The Butterflies of the Eastern United States and Canada, with special reference to New England," the first part of which was issued on November 1st, and will be completed during the year.

Mr. W. H. Edwards is also carrying on his magnificent work on the "Butterflies of North America." Three parts, containing nine beautiful plates, were issued during last year.

Several works of a very different scope from either of the above, but still very useful, and issued at a moderate price, have been published by other associate members of our society during the past year.

Among these, special mention should be made of "Entomology for beginners, for the use of young folks, fruit-growers, farmers and gardeners," by Dr. A. S. Packard, and "An Introduction to Entomology," part I, by Prof. J. H. Comstock.

A second edition of Mr. William Saunders' important work on "Insects injurious to fruits" has also been issued.

H. H. LYMAN,
Delegate.

MONTREAL BRANCH OF THE ENTOMOLOGICAL SOCIETY OF ONTARIO.

The sixteenth annual meeting of the Montreal Branch was held on May 15th 1889, at 8 o'clock, p.m.

The President read the following report of the Council for the year:—

Sixteenth Annual Report of the Montreal Branch of The Entomological Society of Ontario.

The Council in submitting their report for the year 1888-89, have much pleasure in recording a decided improvement in the condition of the Branch since the last annual meeting.

During the year eight meeting have been held at which the following papers were read:—

1. List of Butterflies taken at Cap à l'Aigle, P. Q.—E. C. Trenholme.
2. The Butterflies of Northern British America.—H. H. Lyman.
3. Notes on the forms of *Lycæna pseudargiolus* found at Montreal.—E. C. Trenholme.
4. Historical Sketch of the Montreal Branch.—H. H. Lyman.
5. Notes on Hipparchia or Satyrus.—H. H. Lyman.

The members had the pleasure of the attendance of the President of the parent society at the March meeting, at which an interesting discussion on the species of the genus Pamphila took place.

During the year one member, Mr. Albert Holden, has resigned.

The President of the Branch had the honour of being elected the Society's delegate to the Royal Society of Canada, and attended the meeting of that distinguished body on May 7th of the present year.

In conclusion the Council would again urge the members to greater activity in the study of the science; not to be merely collectors of these beautiful forms, but to study their habits and life-histories, as much still remains to be done in this department and the work, though requiring patient care, is most interesting.

Submitted on behalf of the Council.

H. H. LYMAN,
President.

The Secretary-Treasurer submitted the financial report.

The reports having been adopted, the following officers were elected for the ensuing year:—President, H. H. Lyman; Vice-President, F. B. Caulfield; Secretary-Treasurer, E. C. Trenholme; Council, J. F. Haussen, A. F. Winn.

The President showed specimens of *Cœnonympha ampelos*, *Nisoniades propertius*, *Pamphila agricola*, and *Halisidota sobrina*, from Victoria, B. C. *Lycæna neylecta* (pupa) from Vancouver Island, and *Nemeophila Selwynii* from Nepigon.

Mr. Winn reported that *Pieris napi oleracea* had been taken in some numbers during the spring and *Brephos infans* seen.

E. C. TRENHOLME,
Secretary-Treasurer.

Mr. Reed in reply to an enquiry gave an account of what had been done during the past year with regard to the Society's rooms and collections; he stated that they had frequently been opened to the public, and that many very plesant evenings had been spent among the microscopes, books and cabinets.

DIVISION GROUPS.

Mr. Reed drew the attention of the meeting to the changes in "The Agriculture and Arts Act" affecting the Society made during the last session of the Ontario Legislature, and moved, seconded by Dr. Bethune, "That in accordance with the provisions of section 67 of the Agriculture and Arts Act as amended in 1889, the agricultural divisions in Schedule A of the said Act be grouped into the following five divisions for the purpose of electing one person from each of such five divisions (who shall be a resident of the district he represents) as directors of the Entomological Society of Ontario:—

Division	1	to comprise	Agricultural	Divisions	1, 2, 3.
"	2	"	"	"	4, 5, 13.
"	3	"	"	"	6, 10.
"	4	"	"	"	7, 8, 9.
"	5	"	"	"	11, 12.

and that this grouping of the divisions be in force until otherwise altered or re arranged at any annual meeting of the Society."—*Carried.*

ELECTION OF OFFICERS.

The following gentlemen were elected officers for the ensuing year:—

President, Rev. C. J. S. Bethune, M. A., D.C.L., Port Hope; Vice-President, E. Baynes Reed, London; Secretary-Treasurer, W. E. Saunders, London; Librarian, E. Baynes Reed, London; Curator, Rowland Hill, London;

Directors, Division 1.—W. H. Harrington, Ottawa.
" 2.—J. D. Evans, Sudbury.
" 3.—Gamble Geddes, Toronto.
" 4.—J. Alston Moffat, Hamilton.
" 5.—J. M. Denton, London.

Editor of the *Canadian Entomologist*, Rev Dr. Bethune, Port Hope; Editing Committee, James Fletcher, Ottawa; J. M. Denton, London; Rev. T. W. Fyles, Quebec; Dr. Brodie, Toronto; Delegate to the Royal Society of Canada, H. H. Lyman, Montreal; Auditors. J. M. Denton and E. B. Reed.

LEPIDOPTERA AND NOMENCLATURE.

Mr. Moffat, who has been engaged for some time past in rearranging the Society's collections, spoke of the desirability of printing a new list of lepidoptera for labelling purposes.

Dr. Bethune said that he did not think it advisable to do so just now as the nomenclature of the order must be considered to be in a somewhat transition state; he thought that after Mr. Scudder's magnificent work on the butterflies was completed, and students had time to master its contents, there would be

a very general adoption of many, at any rate, of his generic titles, and that this would alter very much our current nomenclature. He also referred to Prof. J. B. Smith's contemplated monograph of the *Noctuidæ*, the frequent descriptions of new species by Mr. Hulst and others, and the work of Prof. Fernald among the *Micros*, as rendering the publication of a list premature at present. He said that he had in his possession a new check-list of the *Noctuidæ* by Mr. Grote, but its publication was deemed unwise owing to the foregoing considerations. He thought that Mr. Moffat's object could be met by printing a few sheets to supplement the lists published a few years ago by Dr. Brodie and Dr. White.

GALL INSECTS.

Dr. Brodie gave a very interesting account of his studies and investigations of the habits and life-history of gall insects, to which he has devoted much time and labour for many years past.

EFFECTS OF HEAT UPON INSECT LIFE.

BY THE REV. THOMAS W. FYLES, SOUTH QUEBEC.

The Rev. T. W. Fyles read a paper on the "Effects of Heat upon Insect Life."

Our attention has been drawn by that accurate observer, Mr. W. H. Edwards, and others, to the effects of cold in retarding the developement of insects from stage to stage of their existence. The effects of heat in hastening their changes are no less remarkable. Last autumn I found caterpilars of *Amphion nessus* upon Virginia creeper (*Ampelopsis quinquefolia*). They were full fed; and I placed them (for the time being, as I thought) in a glass jar, partly filled with fresh earth that had been carefully examined, and containing oak leaves in which some, to me, unknown larvæ were mining. These latter I hoped to raise. Failing in my efforts, I placed the jar on a shelf in my study, quite forgetting the Nessus caterpillars. On the last day of December my attention was arrested by the rustling of the dry oak leaves in the jar. On examination I found a newly developed imago of Nessus; and a further search revealed a second crippled and dead. My room had been kept at an equal temperature—the fire having been maintained night and day.

On the first of January, in the same room, a specimen of *Papilio asterias* presented itself. A neighbour's son had brought the chrysalis some months before and, to please him, I had fastened it by its silken attachment to the window frame.

No doubt many butterflies that present themselves at times in the winter are hibernating species; but this instance shews that summer forms may be developed untimely by heat. *Pieris rapæ* is often seen in houses in mid winter, the chrysalids having remained unnoticed in neglected corners.

Those who have had much experience in raising insects will no doubt have observed, that, in instances of species that spend the winter in the egg, the warmth of the house sometimes causes the eggs to hatch before the leaves of the proper food plant have appeared. I have often had to open the leaf buds, and to place in them, by means of a camel's hair pencil, the newly hatched larvæ, that they might feed upon the undeveloped leaflets. Through this expedient they have been supported till the foliage was more advanced.

The invigorating effects of warmth upon hibernating insects have often been noticed. In England, in sheltered woodland nooks, on unusually bright days, even as late as November, I have seen *Grapta comma* disporting itself. We had some remarkably fine weather in Quebec province early in the present year, and, on the 5th of April, I captured at Magog a female specimen of *Grapta J-album*. I brought it alive to Quebec hoping to obtain eggs from it; but, after keeping it for some time, I came to the conclusion that it had not been fertilized. Mr. Caulfield, mentions, in Can. Ent. Vol. IX., page 40, that he saw a pair of this species *in coitu* as late as April 26th.

In parts of the country where the land lies open to the south for any considerable distance, and where warm winds prevail, insect forms are found far from their usual habitats. From Chateauguay near the valley of Lake Champlain and the Hudson, Mr. Jack has recorded the capture of *Papilio chresphontes* and *Euptoieta Claudia* (Can. Ent. Vol. XIV, p. 219). And in the Niagara district, near the extremity of the broad Mississippi valley, many southern insects have been taken.

Hitherto we have noticed the effects of heat in hastening the development of immature insects and in invigorating those that have reached perfection; but we must not forget to notice that heat intensified soon becomes fatal to insect life.

The 22nd of March of the present year was unusually bright and warm, though the snow still covered the ground. I was on a visit at Melbourne, Province of Quebec. Tempted by the warmth, I took a chair and sat in the sunshine on the verandah of the house at which I was staying. Looking up, I saw in the shadow of the roof a number of water flies of the species *Perla nivicola* (Fitch). Presently one of these fluttered down, and alit in the glare of the sunshine. In a moment or two it exhibited signs of the utmost distress. It hurried hither and thither, whirled around as if seized with vertigo, then curled up, and died. Soon another of the insects descended, and, after vainly endeavouring to find shelter in a crevice, succumbed in the same way. I looked round and found a number of the dead flies, all lying where the sun struck with greatest power. The circumstance reminded me of the occasion of my first acquaintance with *Nematus Ericksonii* in its perfect state. In 1883 I had seen the larvæ in great numbers in the border townships Bury, Lingwick, etc. In 1884, on an intensely hot summer's day, I was crossing to Quebec in the Levis ferry-boat. The deck was like the floor of an oven; and scattered over it were numbers of the saw-flies. Migrating and weary, they had been tempted to alight, and had been overpowered by the heat, and literally roasted.

We all know that, on bright "field-days," the morning before the sun has gained its strength, and the afternoon, when it is on the decline, are the times for finding diurnal insects on the wing. They seem to avoid exposure to the sun in its meridian splendour.

I have been testing the degree of heat that the potato beetle *Doryphora decem-lineata* can bear; and I find that water heated to 114° (96 degrees below boiling point) will kill them.

Boreal forms of insect life are met with in isolated spots in which the climatic influences are exceptional. For instance, *Chionobas semidea* is found on the summit of Mount Washington and nowhere else in a radius of many hundred miles.

Mr. Scudder has given us valuable information concerning the effects of heat upon Semidea. He tells us that the insect "cannot bear transportation so much as 3,000 feet vertically to the base of the steeper slopes, at least if this transportation is effected in a rapid manner."

In a swamp, not far from Quebec, near the point where the great northern plateau begins to recede from the river, *C. Jutta* may be met with. There are similar swamps on the south side of the St. Lawrence; but I have never heard that Jutta has been found in them.

Chionobas Macounii, it would seem, cannot bear the degree of temperature that Jutta may be safely exposed to. Mr. Fletcher sent me eggs of the species, and they hatched, but I lost the larva after the second moult. The weather at Quebec was, I presume, too mild for them. However, the larvæ seemed to have survived longer with me than with others, so I give my notes upon them. And here I would observe that the notes of Mr. Beutenmüller upon the young larva, in the *Canadian Entomologist* for August last, agree with my description of it *after the first moult*. The first moult probably escaped Mr. Beutenmüller's observation.

NOTES ON CHIONOBAS MACOUNII.

Newly Hatched Larva.—One-tenth inch long. *Head*, large, honey-yellow, indented, marked transversely with two rows of light brown spots. Several dark brown warts on each side of the head. *Body*, bluish white; dorsal, sub-dorsal, side, and spiracular lines dark-amber. Two dots of the same colour, one on each side of the dorsal line, in each segment. Anal projections. *Spiracles*, dark amber. *Legs*, semi-transparent. Moulted August 13th.

Larva after 1st Moult.—Two-tenths of an inch long. *Head* whitish, indented, having six longitudinal rows of pale brown dots. *Body* cream-white; dorsal and sub-dorsal lines cinnamon; side lines brown; spiracular line pale cinnamon; spiracles black. Moulted September 3rd.

Larva after 2nd Moult.—Length one-quarter of an inch. *Head* indented, whitish with a faint purple tinge, retains the six longitudinal rows of brown dots. Six black warts on each side. *Body* cream-coloured; dorsal line amber, then at both sides at intervals a chocolate line, an amber line, and again a chocolate line. Spiracular line a lighter shade of chocolate. A similar line just above the legs. Spiracles black, the first and last on each side larger than the rest. After this moult the insect became sluggish, refused to eat, and gradually withered away.

Doubtless many interesting particulars of the effects of heat upon the insect life might be accumulated if entomologists would record their observations in regard to them.

Mr. Harrington thought that the difference of atmospheric pressure had a good deal of effect upon insects brought down from high altitudes to the lower levels, as well as the change of temperature. As an instance of the fatal effects of extreme heat, he mentioned that he had found the snout beetles *Pissodes strobi* and *Conotrachelus nenuphar* in quantities upon a zinc roof at Ottawa in summer, and that when the sun got round to them they were usually all killed by the heat of its rays; he had found as much as a quart of these beetles in a corner of the roof from this cause.

Mr. Fletcher mentioned that he had had some caterpillars of *Chionobas Macounii* which had attained their full growth. They were reared from eggs obtained last year at Nepigon (a full account of the expedition in search of these eggs is given in the Annual Report for 1888, page 85). The caterpillars hibernated in their second stage, passing the winter out of doors on sedges entirely without protection. In the early part of the winter the cold was very severe and the thermometer fell to 20° below zero; afterwards the caterpillars were covered with about four feet of snow.

The Rev. W. A. Burman, of Winnipeg, was elected a member of the Society.

After spending some time in the examination and discussion of various specimens brought by members, the meeting adjourned to meet again next year in London, Ontario.

In Memoriam : George John Bowles.

By F. W. Goding, M.D.

The recent death of Mr. Bowles has called forth expressions of regret from every quarter, and is considered by all who were so fortunate as to name him among their friends as a national loss. The Council of the Ontario Entomological Society, referring to his death, said : "They have to deplore the loss they have recently sustained by the lamented death of their colleague, Mr. G. J. Bowles, of Montreal, who was for many years an active and zealous member of the Society, an able and efficient worker, and a valued contributor to the magazine and annual reports."

George John Bowles was born in Quebec, June 14th, 1837, and was the eldest son of Mr. John Bowles, a tradesmen of that city, and his wife Margaret Cochrane ; a worthy couple still living at a ripe age at Brighton, Ontario.

In 1844 the family removed to Three Rivers, in the Province of Quebec, where they resided for seven years, returning to Quebec in 1851. During this period George received his only school education, finishing it by a course of study at the Three Rivers academy. Soon after returning to Quebec he began to earn his own living by entering the Quebec Provident and Savings Bank as clerk, a situation he held for nineteen years, rising at last to the post of assistant cashier. In the early part of this period the advantages of a collegiate education were not available in Quebec for residents, the Morin College being not then in existence, and although the boy's inclinations always lay in that direction, they could not be gratified. He was a great reader, however, and by dint of application amassed an amount of information, Biblical, historical and scientific, which was a "well of pleasure" to him ever afterward. His short business hours, and a residence for several years some miles from the city, greatly favored his love of nature ; rambles through the woods in the vicinity soon made him acquainted with the birds, insects and plants to be found there, "and a walk of five miles, almost daily, to town through charming scenery of the old city of Quebec, was a pleasant task."

In 1863 Mr. Bowles began to direct his attention more particularly to entomology. At that time Mr. Wm. Couper, a well-known Canadian naturalist, lived in Quebec, and to him Mr. Bowles came for assistance, which was cheerfully given him at all times. The capture of a specimen of *Pieris rapae* then lately introduced from Europe and beginning to be abundant about him, was one of the causes which induced him to take up entomology as a specialty. His first contribution to scientific literature was on this subject, and was published the following year. But his scientific studies were directed chiefly by Prof. Wm. Saunders, who gave him every help throughout his entomological career. His spare time between the years 1863 and 1872 was spent in collecting the Lepidoptera of the vicinity of Quebec, and studying the injurious insects of that locality, publishing carefully prepared papers, chiefly in the *Canadian Entomologist*, the *Canadian Naturalist and Geologist*, and the Montreal Horticultural Society's reports.

In 1872 Mr. Bowles removed to Montreal to become secretary-treasurer of the British American Bank-note Company, a position he held till his death. Although engaged continuously for more then twenty-five years in business affairs of a most exacting nature, he studied during his leisure hours the insects of his native Province of Quebec, and endeavored to advance and popularize our knowledge of them. That he was eminently successful is well-known to all interested in the agriculture of Canada. The principal part of his work was done by private correspondence, which, if collected and published, would be a fitting monument to his industry.

He was for several years president of the Montreal branch of this Society, holding that position at the time of his death. He was an honored member of the following :— Montreal Natural History Society, Montreal Microscopical Society, American Association for the Advancement of Science, and the New York Entomological Society, to whose meetings he contributed occasional papers.

Mr. Bowles was married in 1861 to Miss Elizabeth Patterson, orphan daughter o

an officer in the British Army, and has left a son and two daughters. His large entomological cabinet representing all orders of insects, has been transferred to the museum of the McGill University.

Mr. Bowles was inclined to be quiet and unassuming in his habits and manners; he was always a diligent student and an honest observer. In a letter to the writer he said: "My life has been so uneventful that there is but little of interest in it. It has been filled, however, with steady, quiet work."

PROCEEDINGS OF THE ENTOMOLOGICAL CLUB OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

For the first time in its history the American Association held its annual meeting in this Province, and assembled in the University Buildings, Toronto, on the 28th of August, 1889. The Entomological Club began its regular sessions in the afternoon of that day in the rooms of the new Biological Department of the Toronto University. There were present during the meetings:—Rev. C. J. S. Bethune, Port Hope; W. A. Bowman, Dr. T. J. B. Burgess, Hamilton; Prof. A. J. Cook, Agricultural College, Mich.; B. E. Fernow, Washington, D.C.; J. Fletcher, Ottawa; H. Garman, Lexington, Ky.; C. W. Hargill, Oxford, Ohio; L. O. Howard, Washington, D.C.; Dr. Hoy, Racine, Wis.; H. H. Lyman, Montreal; J. J. Mackenzie, Toronto; Prof. W. Saunders, Ottawa; Prof. J. B. Smith, New Brunswick, N.J.; E. P. Thompson, Beaver Falls, Pa.; Clarence M. Weed, Columbus, Ohio; Rev. L. C. Wurtele, Acton Vale, P.Q.

The meeting was called to order by the President, Mr. James Fletcher, who then delivered the following annual address:—

ANNUAL ADDRESS OF THE PRESIDENT OF THE ENTOMOLOGICAL CLUB OF THE A. A. A. S., 1889.

Gentlemen.—Another year has rolled by since we held our last pleasant meeting in the city of Cleveland. It is with much pleasure that I recognise here to-day the faces of several of those who helped to make that meeting so successful, and, as gratitude has been satirically described as "a keen appreciation of further favours to come," I feel grateful to such of you for being present at this meeting, the success of which, to a certain extent, your presence assures; but for which I, as presiding officer, shall be held largely responsible. With the help of our Secretary I have endeavored to arrange the papers to be read so as to save as much time as possible, and at the same time to make the most of the papers. It is a time-honoured custom that the President should give an address at the opening of the annual session, I therefore bow to the decree of fate, and shall endeavor for a short time to lay before you some subjects which it has occurred to me are worthy of consideration by the members of the club. Inaugural addresses generally take the form either of a prospective or retrospective view of the matters with which the society before which they are delivered particularly concerns itself; or, on the other hand, they are devoted to the elaboration of some one special subject. I purpose following the former of these courses to-day, and shall briefly remind you of some of the most remarkable occurrences affecting entomologists which have taken place during the period which has elapsed since we last met, and I shall also endeavor to direct your attention to one special matter connected with the future of the science which it seems to me can be discussed to advantage during the present meeting.

When last year you conferred upon me what I felt was the too great honour of electing me, the first Canadian, to fill the chair of the Entomologists' Club, I accepted that position as tendered to the President of the Entomological Society of Ontario, in recognition of the good work which has been done by that Society, which I, on that occasion, together with Dr. Bethune, had the honour of representing as delegate.

The chief attacks by insects upon cultivated crops which have demanded the attention of entomologists during the past season are the following:—In all parts of Canada and the United States the noctuid larvae known under the name of "Cutworms" were extremely abundant in the spring. In the Maritime Provinces of New Brunswick and Nova Scotia, as well as Quebec, the Tent Caterpillar did much injury to orchard and forest trees. In Central Ontario *Meromyza Americana* was unusually abundant, but it was also accompanied by its parasite *Cœlinius Meromyzæ*. Not only were certain kinds of wheat and barley severely attacked, but also a single instance of the attack on oats was observed, and I made the further unpleasant discovery that the species bred freely in various wild grasses, chiefly of the Genera Agropyrum, Deschampsia, Elymus and Poa. Upon the experimental grass patches of the Experimental Farm at Ottawa the species of Agropyrum and Elymus and *Poa Serotina* were the grasses most attacked, while only a single instance of injury to *Setaria viridis* was noticed. An interesting point was that while *Poa Serotina* was so severely injured, *Poa pratensis*, *Poa caesia* and *Poa compressa* were almost exempt. The species of Elymus and Deschampsia were attacked in the young shoots close to the root, but the others mentioned in the top joint of the flowering stems, by which the appearance known as "Silvertop" was produced. The name "Silvertop" is also applied to the results of the ravages of Phlœothrips poaphagus, which is now becoming a "first-class pest" in many parts of Canada. The grasses which suffer most from this insect are, early in June, *Poa pratensis*, and, later in the month, *Phleum pratense*. A much more serious matter, however, was a new injury to oats by a species of Thrips, which has been found to be an undescribed species. This insect attacks the flowers of oats just before they leave the sheath, in consequence of which they turn white and die.

An outbreak which may prove to be one of great importance is the appearance during the past summer, in one of our Canadian towns, of large numbers of the European Flour Moth (*Ephestia kuhniella*). Radical measures have, however, been taken by the Provincial Government for its suppression, and I trust that it may be stamped out before it spreads to other centres of the milling industry.

In the United States the attacks of most interest were the following:—The appearance in very large numbers of the Grain Aphis, *Siphonophora avenæ*, in Michigan, Ohio, Indiana and Illinois drew forth many notices in the public press. Perhaps next in importance was the outbreak of an imported fly of the genus Hæmatobia which has increased so as to become a serious pest to cattle. It has occurred in injurious numbers in Pennsylvania, New Jersey, Delaware, Maryland and Virginia. Its life history has been studied by the entomologists at Washington and Prof. J. B. Smith in New Jersey. The salient points are already discovered and successful remedies have been made known. The Army Worm (*L. unipuncta*) has done restricted damage in Indiana and has also occurred in Florida. Brood viii. of *Cicada septendecim* has appeared in Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, Ohio, Kentucky, Maryland, North Virginia and North Carolina. The Chinch Bug (*Blyssus leucopterus*) has been abundant in Missouri during the past summer and (*Phorodon humuli*) is reported as more abundant in New York this summer than it has been since 1886. *Attacus cecropia* has been remarkably abundant in the tree planted regions of the west and north-western States.

The Cotton Worm and Boll Worm have been very abundant and injurious in the cotton fields of the south. Trees and shrubs of all kinds, both in the United States and Canada, have suffered much by the attacks of various leaf-hoppers. These attacks will doubtless all be dealt with by the United States Entomologist or the State Entomologists in their reports, so I shall not now speak of them at greater length than I have done, but will beg you to give me your special attention while I speak to you upon a subject which appears to me to be, at the present time, one of very great importance. It has lately been brought prominently before the entomological world in the pages of *Insect Life*. This is no less than the organization of the active, working, economic entomologists of North America into a permanent association or union, so that an opportunity may be afforded to those students who are specially engaged in the practical application of the science, of meeting periodically to discuss new discoveries and to

exchange experiences as to the best methods of work. The value of such an association cannot, I believe, be over-estimated. The recognition which, during the past decade, has been accorded to entomology as a branch of practical agriculture, makes it important that as little time as possible should be wasted upon unnecessary reduplication of experiments, and also, on the other hand, that successful methods of combating injurious insects should be made known as widely and as quickly as possible.

A small number of the States of the Union had employed their State Entomologists for some years past and Canada hers since 1884; all of these officers had striven hard to do good and useful work in the vast field which lay before them. Recently, however, a great impulse has been given to practical science in all lines by the very important "Hatch Experiment Station Act," which was passed by Congress in 1888. This act provided that a sum of $15,000 should be annually set aside for the purpose of carrying on scientific agricultural experiments in every State of the Union. In consequence of this act there have already been organized over 60 experimental stations, twenty-seven of which have entomologists on their staffs, and these officers have already issued much valuable practical information in the shape of bulletins to the farmers of their respective States. The operations of injurious insects are such an important factor in the success or failure of all crops grown, and the recognition of that fact is now becoming so wide-spread amongst the educated agricultural classes, that, before long, it is beyond question that the directors of the other stations will see the advisability of adding an entomologist to their staff. The result of this will be that we shall have in North America a large number of men specially trained for the work they have undertaken, with sufficient time and means at their disposal for carrying out any experiments which may be necessary. Surely under such circumstances important results must follow. They all have the same object in view: the discovery, as soon as possible, of practical—that is efficient, simple and cheap—remedies for the various injurious insects which destroy produce. The work of all these students will of course have to be carried on independently, in widely separated localities, and a fact which will give special value to their labours will be that similar experiments will be carried out carefully and scientifically under differing circumstances and with varying climatic conditions.

Such an opportunity for showing the value of science has never before occurred, and it is incumbent on the men who accept these positions to recognise also the responsibility of their offices. I would suggest that not only is extreme care necessary in the carrying out of our experiments as official entomologists, but also great thought must be given to the best means of publishing and making known results. Above all things it is necessary to gain the confidence of those for whom we write. The editors of agricultural papers are frequently inquiring for articles upon economic entomology, but they always say they must be simply expressed or they are useless to them, because their readers will not read them. Even amongst highly educated and even cultivated people you find many to whom the very word "science" is a bug-bear, and much more is this the case with a large class of agriculturists; a class which, although it does contain many men of education and culture, of course consists mainly of men who have not had the time nor opportunity to avail themselves of educational advantages. They are, however, as a class, men who spend their lives away from the distractions, largely frivolous and useless, of city life, and as a consequence develop a faculty for observation, thought and practical application which would indeed be a boon to many an aspirant to scientific fame. Writings upon agricultural entomology should be, I think, couched in the simplest language possible; the articles should be short and concise, without too much detail of the life history of the insects discussed. Prominence should be given to the nature of the attack, so that it may be recognised; the essential points of the life history of the insect, so that its habits may be understood and missing links filled in; and, above all, the best remedy under existing local circumstances; and, lastly, a statement of such information with regard to the pest as may be lacking.

During a somewhat extensive intercourse with farmers, I have always found them anxious to learn anything about injurious insects and the means of combating them. As a general thing they are willing to devote both time and labour to any

experiments suggested, if there is only a chance of success; but they complain that frequently writings, which are professedly written expressly for them, are unintelligible, that there is too much detail concerning the life history, or that even under remedies there is frequently a long string given without comments, some of which are good and some useless. Now this is to a certain extent true, and is due I think to two causes, either, as stated in *Insect Life*, that "Economic entomology has heretofore greatly suffered by the writings and pretensions of those who have no sort of appreciation of its real value and importance, but who, writing at second hand upon subjects of which they have no personal knowledge whatever, are just as apt to disseminate error as truth," or perhaps to the fact that some entomologists have tried to cover too much ground, and, while professedly writing articles for the good of a class which it is assumed has no knowledge of scientific terms, at the same time endeavour to maintain their scientific status and secure the credit of priority in description or discovery. I would venture the opinion that it is impossible to combine these two causes advantageously, and that the scientific details and necessary descriptions and discussion of theories would find a more appropriate place in the scientific periodicals, and transactions of societies devoted to the subject; whilst the results—the practical application of our work for the good of the country—should be published where, and in the manner, they can do the most good. It will be seen in this way that I give the highest place of honour to economic entomology, and this I really believe to be a proper arrangement. The systematic classification of orders and genera and the arrangement of large collections so as to understand the proper relationships which exist are matters of engrossing interest, but the intelligent application of this knowledge for the benefit of mankind at large draws such vast consequences in its wake that it demands the attention of entomologists. So great, however, is the field of entomology that it cannot possibly be covered by any one individual, and the work of specialists in every department is necessary. Owing to the institution of the various experiment stations in the United States with their several entomologists, doubtless the attention of many will now be turned to entomology who otherwise would not have thought of it; and also so many men entering enthusiastically upon the field at the same time to do original work will certainly have the effect before long of producing eminent and useful public officers. I therefore make a special appeal to you to consider now whether a union which would be the means of bringing together, at least once a year, all those working specially in economic entomology, would not be a useful institution. Some of the official entomologists have been well trained in economic entomology, whilst others are young men fresh from college and with only a general knowledge of the subject. To these latter, of course, by far the greatest advantage would accrue; there is such an infinity of small things and so many doubts which a word from one of greater experience can settle, that the meeting, if only once a year, where questions of economic interest alone would be discussed, would be, I believe, an inestimable boon to all of us. And, from the favour with which this suggestion has been received by many of the fathers of economic entomology, I believe that even they would reap sufficient benefit from the experience of others to well repay them for any time they might devote to these meetings for the encouragement of others or for the good of the cause. Without going into too great detail, I shall mention one or two of the advantages which it has occurred to me will be secured in connection with such an organization. First of all, it will give opportunities for a large body of earnest workers, in the same field and with the same interests, to become acquainted with each other, and this I consider a point of great importance. I regret to say that it cannot be denied that there is sometimes evidence of unkind feeling towards fellow students in scientific writings. The social intercourse which would be engendered by the union would do much to put an end to this. Many small matters which might offend or hurt can be overlooked, or, as we say, "understood," when we know the man from whom they emanate, and I presume my experience of life cannot have been very widely different from that of other people when I have found far more to like than to dislike in everyone when you come to know them. Well, this union will allow us to know each other. It will give us an opportunity for systematic work. Problems frequently arise of paramount importance to the whole country; by this means

it will be possible to delegate certain parts of any special investigation to such students as may have special opportunity therefor.

Above all the union will be an advisory board, either for discussing matters of great interest to ourselves, or for the advice of the Legislature upon occasion of any serious visitation or threatened visitation by insect enemies; and thus while we are united we shall do far better scientific work, we shall uphold better the dignity of our offices, we shall gain the confidence of the public and of the government, and we shall be bound together in a solid union for our own good and that of the country at large.

Although I have taken the liberty of bringing this matter before you now, and ask you to express an opinion on it at once, as you are well aware it is no new idea sprung upon the meeting unawares. As I have mentioned, notices have appeared in *Insect Life* suggesting the matter, and I have myself distributed, to every one who I thought would be interested, a circular notifying them that I proposed bringing the matter up for discussion to-day.

The movement seems to have originated with the very eminent United States Entomologist, Prof. C. V. Riley, who has done so much by his writings and successful experiments to raise economic entomology to the honourable position it now enjoys in the appreciation of intelligent people of all classes.

And now, gentlemen, allow me thank you for the great honour you conferred upon me when you elected me to preside over you during the past year and at this meeting. I hope sincerely that the Entomological Club of the American Association may continue to prosper and be the means of bringing us all together at least once a year, like the members of a large and attached but widely scattered family, who rejoice when, on such festivals as Christmas, New Year's or Thanksgiving Day, an excuse or opportunity is given for a social reunion, where we may discuss with each other, in a friendly manner, matters of general interest. I trust that during the present meeting the deliberations may be carried on in the same spirit of kindness and forbearance which has always characterized previous meetings, and in conclusion I hope that we all may be long spared to meet annually and derive from each other the benefits of scientific discussion and enjoy the social pleasures of mutual intercourse.

I am, gentlemen,

Your obedient servant,

JAMES FLETCHER.

At the close of the address attention was called to the absence of the Secretary, and on motion Clarence M. Weed was elected Secretary *pro tem.* A long discussion followed concerning the advisability of organising such an association as was suggested in the President's address. Letters were read by the President from F. M. Webster, Herbert Osborn, A. H. Mackay, F. B. Caulfield, T. E. Bean, M. H. Beckwith, W. B. Alwood, W. H. Harrington, C. J. S. Bethune, J. B. Smith and C. M. Weed. Mr. Howard also reported letters from L. F. Harvey, Lawrence Bruner, J. P. Campbell, C. W. Woodworth, C. P. Gillette, S. A. Forbes, E. J. Wickson, J. H. Comstock, all of whom heartily favored such an organisation. Those present also expressed themselves in favor of it. On motion the Club then adjourned to 9 a.m. on Thursday.

The Club met on Thursday morning pursuant to adjournment, Mr. Fletcher in the chair, and proceeded to discuss the entomological matters touched upon in the President's address.

In reply to a query from Mr. Howard, Mr. Fletcher said he never bred any parasites from *Nematus erichsonii*, though he had bred thousands of this species. Mr. Howard said he was especially interested to learn, because a few years ago Dr. Packard described a *Pteromalus* parasitic on this insect which had since proved to be the same as a European parasite.

Prof. Cook and Mr. Howard reported the successful use of poisoned baits of clover and similar substances in destroying cut-worms. The former had tried it in general field culture in Michigan. Patches of clover were sprayed with Paris green water, then the clover was cut, placed in a waggon and carried to the field where it was distributed in forkfuls before the crop was planted. The cut-worms fed upon it and were killed. Prof. Smith reported that this method had also been successfully used in New Jersey. Mr. Fletcher called attention to the fact that the worms are not killed immediately but go beneath the soil surface about an inch where they die in the course of a day or two.

Prof. Cook had also tried planting succulent plants in fields of grape vines and apple trees to prevent the climbing cutworms from injuring the buds, with considerable success. He had bred *Meromyza Americana* from oats very frequently. Prof. Smith had often taken adult *Meromyza* in a sweep-net in New Jersey, but had not known it to do any serious damage. He said that the Wheat Midge did some injury in New Jersey.

Mr. Fletcher thought no remedy for the Wheat Midge had been suggested but that of destroying refuse. Prof. Cook advocated pushing the crop to rapid maturity. Prof. Saunders reported this pest very destructive in many parts of Canada. At Prince Edward's Island farmers plant either very early or very late to avoid it. Had lately seen many flies about infested heads which he supposed to be parasites.

Prof. Cook said that one of the most serious pests in Michigan was the wire-worm for which no successful remedy was known. One year's cultivation of buckwheat would not destroy them. He also asked how Chrysopa larvæ feed, reporting observations indicating that the juice of the victim was sucked in through the long jaws. Similar observations upon the mode of feeding of Syrphus larvæ showed that they partially roll themselves inside out, making a sort of funnel of themselves in sucking their victims.

In speaking of injury to Larches by *Nematus erichsonii*, Mr. Howard reported that Dr. Packard had figured in the forthcoming report of the U. S. Entomological Commission, Larches killed by repeated attacks of this insect, and added that there were Elms on the Department grounds at Washington that had been defoliated year after year by another insect but yet were still vigorous.

Mr. Saunders reported that the bean crop had been badly injured by cut-worms this year.

Mr. Howard called attention to the ease with which parasites of scale insects can be carried from place to place.

Prof. Smith made some remarks on the structural peculiarities of the genus *Agrotis* tending to show that a loosely assembled mass of species is classed under this generic name. He described the variations in the palpi, the frons, the thoracic tuftings, the antennæ, the legs, the wing form and the general habitus, and showed that any definition of the genus based upon the existing assemblage would take in every Noctuid, with naked eyes and spinose tibiæ, hind wings not red or banded. He gave some of the characters upon which he had divided the genus and stated that a monographic revision of the species was completed in MSS. and about ready for the printer.

Mr. Weed then read a paper on "Experiments with Remedies for the Striped Cucumber Beetle."

In the discussion which followed Mr. Howard reported that "X. O. Dust"—a patent combination of ground tobacco and some other substances—had been found a specific for the flea-beetle.

Mr. Smith reported that he had found the same substance an excellent remedy for the Horn Fly, Asparagus beetle larvæ, and many other pests. Prof. Cook reported better success with tobacco decoction than dust. Found the decoction the best remedy for use on domestic animals.

Prof. Cook read a paper giving an account of injury to furniture by a small beetle, *Lasioderma serricorne* not hitherto reported to have such habits.

The Club then adjourned to meet at 1.30 p.m.

At the appointed time the Club was called to order by the President.

A paper on "Experiments with Remedies for the Plum Curculio" was read by Mr. Clarence M. Weed.

Mr. Smith called attention to the fact that in New Jersey there was no second brood of the Elm Leaf Beetle this season. Prof. Hargitt reported that peaches were seriously injured by the curculio in south-western Ohio this season.

Prof. Cook then read an extract from a bulletin of the Michigan Agricultural College concerning spraying with the arsenites, showing that London purple in his experiments had injured foliage more than Paris green.

A long discussion followed concerning the injury of foliage by the application of the arsenites, in which various opinions were expressed, the most important point brought out being the necessity of an exhaustive investigation of the whole subject.

Prof. W. O. Atwater, of the Office of Experiment Stations of the Department of Agriculture, was then introduced to the Club, and gave a pleasant talk, especially with reference to the co-operation of his office with the recently organised Association of Official Economic Entomologists.

The election of officers then took place with the following result:—President, A. J. Cook; Vice-President, C. J. S. Bethune; Secretary, F. M. Webster.

On motion of Mr. Smith the secretary *pro tem* was authorised to publish the proceedings of the Club in *Entomologica Americana*.

The Club then adjourned to meet after the adjournment of the Biological Section, A. A. A. S.

On re-assembling, Mr. L. O. Howard read a paper entitled "On the Parasites and Predaceous Enemies of the Grain Plant-louse," in which he reviewed the previous literature and discussed at some length the rearing by the Division of Entomology, U. S. Department of Agriculture, of nine true parasites of *Siphonophora avenæ*. Illustrations of all of the species were exhibited, together with a full series of specimens. The paper was discussed by Mr. Saunders and Prof. Cook.

Mr. H. H. Lyman read a paper on "Variation in the genus Callimorpha," in connection with which he exhibited a large series of specimens and discussed at length the question of specific limitations. The paper was discussed at length by Prof. J. B. Smith.

A letter from Mr. Wm. H. Edwards was then read by the Secretary, giving the results of breeding experiments for the season.

The Club then adjourned *sine die*.

CLARENCE M. WEED,
Secretary *pro tem*.

ASSOCIATION OF ECONOMIC ENTOMOLOGISTS.

In pursuance of the call published in the *Canadian Entomologist*, in *Entomologica Americana*, and distributed by James Fletcher, President of the Entomological Club of the A. A. A. S., the following persons met in Toronto on August 28th, at 4 p. m.:—James Fletcher, Clarence M. Weed, A. J. Cook, L. O. Howard, John B. Smith, C. J. S. Bethune, H. Garman, W. Saunders, C. W. Hargitt, and others Organization was effected by the election, upon motion of Prof. J. B. Smith, of Mr. James Fletcher as chairman, and Clarence M. Weed as secretary. Mr. Fletcher, in taking the chair, set out the advantages of organization, and urged the formation at the present time of an association that might be specially devoted to entomology in its economic aspect. Remarks to the same purpose were made by Prof. Cook, Prof. Smith, Mr. Weed, Mr. Howard, Dr. Bethune

and Mr. Garman. After full discussion, Prof. Cook moved, seconded by Prof. Smith, that we do now decide to organize an "Association of Official Economic Entomologists." Carried unanimously.

Mr. Fletcher submitted a draft of a constitution drawn by Mr. Howard and himself, after consultation with others.

The proposed constitution was discussed clause by clause, amended and corrected, and finally adopted as a whole in the following shape:—

CONSTITUTION.

1. This Association shall be known as the Association of Official Economic Entomologists.

2. Its objects shall be: (1) To discuss new discoveries, to exchange experiences, and to carefully consider the best methods of work; also (2) to give opportunity to individual workers of announcing proposed investigations, so as to bring out suggestions and prevent unnecessary duplication of work; (3) to assign, when possible, certain lines of investigation upon subjects of general interest; (4) to promote the study and advance the science of entomology.

3. The membership shall be confined to workers in economic entomology. All economic entomologists employed by the general or State Governments, or by the State Experimental Stations, or by any agricultural or horticultural association, and all teachers of economic entomology in educational institutions, may become members of the Association by transmitting proper credentials to the secretary, and by authorising him to sign their names to this constitution. Other persons engaged in practical work in economic entomology may be elected by a two-thirds vote of the members present at a regular meeting of the Association, and shall be termed associate members. Members residing outside of the United States or Canada shall be designated foreign members. Associate or foreign members shall not be entitled to hold office or to vote.

4. The officers shall consist of a President, two Vice-Presidents and a Secretary, to be elected annually, who shall perform the duties customarily incumbent upon their respective offices. The President shall not hold office for two consecutive terms.

5. The annual meeting shall be held at such place and time as may be decided upon by the Association. Special meetings may be called by a majority of the officers, and shall be called on the written request of not less than five members. Eight members shall constitute a quorum for the transaction of business.

6. The mode of publication of the proceedings of the Association shall be decided upon by open vote at each annual meeting.

All proposed alterations or amendments to this constitution shall be referred to a select committee of three at any regular meeting, and, after a report from such committee, may be adopted by a two-thirds vote of the members present, provided that a written notice of the proposed amendment has been sent to every voting member of the Association at least one month prior to date of action,

(Signed) James Fletcher, A. J. Cook, John B. Smith, Charles J. S. Bethune, L. O. Howard, Clarence M. Weed, E. Baynes Reed, H. Garman, C. W. Hargitt.

The hour being late, Mr. Howard moved an adjournment to the 29th, after the meeting of the Biological Section of the A. A. A. S.—Carried.

The Association met, pursuant to the adjournment, at the call of the Chairman *pro tem*, at Scarborough Heights, near Toronto, at 4 p.m., Aug. 29th; the Chairman, Mr. Fletcher taking the chair. On motion of Prof. J. B. Smith, seconded by Mr. L. O.

Howard, the reading of the minutes of the meeting of the Committee organizing the Association was dispensed with, and resolved that the members present do sign the constitution as read and approved at the last meeting, and that by their action the Association of Official Economic Entomologists be, and is hereby duly organized. The following members then signed the Constitution in the order named :—James Fletcher, Chairman ; A. J. Cook ; John B. Smith ; Chas. J. S. Bethune ; L. O. Howard ; Clarence M. Weed ; E. Baynes Reed ; H. Garman ; C. W. Hargitt. The Secretary was authorized to transfer the signatures to the minute book of the Association and to add the signatures of those who had expressed a desire to join in the work of the Association.

Letters were then read from Dr. F. Goding, Illinois, and Dr. J. A. Lintner, New York, expressing sympathy with and approval of the objects of the Association, and asking to be enrolled as members.

On motion of Prof. Smith, seconded by Mr. Weed, the election of officers was then proceeded with.

Prof. Smith nominated Prof. C. V. Riley as first President of the Association, stating that his recognized pre-eminent position as an economic entomologist, and his active interest in the work of establishing this Association, entitled him to the honor and recognition of the Association by election to that office. The nomination was seconded by Dr. Bethune and Mr. Weed each stating the high claims of Dr. Riley to the position. On motion of Prof. Cook, seconded by Prof. Smith, Dr. Riley was elected by acclamation.

Prof. Smith nominated Prof. S. A. Forbes as 1st Vice-President of the Association. The nomination was seconded by Mr. Howard, and Prof. Forbes was elected by acclamation.

Mr. Weed nominated Prof. A. J. Cook, as 2nd Vice-President of the Association. The nomination was seconded by Dr. Bethune, and Prof. Cook was elected by acclamation.

Prof. Cook then took the chair and the meeting was carried on under his presidency.

Mr. Howard nominated Prof. J. B. Smith as Secretary of the Association. The nomination was seconded by Prof. Hargitt, and Prof. Smith was elected by acclamation.

On motion of Prof. Smith, the President was authorized to appoint a committee of two to prepare such by-laws as may be deemed expedient, to be submitted for approval by the Association at its next meeting.

Prof. Cook appointed the Secretary and Mr. Howard as such committee.

On motion of Mr. Howard, it was resolved that the next annual meeting of the Association be held at the time and place where the Association of Agricultural Colleges and Experiment Stations next meets.

On motion of Prof. Smith, the Society then adjourned.

JOHN B. SMITH, Secretary.

ASSOCIATION OF ECONOMIC ENTOMOLOGISTS—FIRST ANNUAL MEETING.

In pursuance of the resolution adopted at the meeting in Toronto, when this society was organized, the association met at Washington, D. C., on the 12th of November, From the New York *Weekly Press* we have obtained the following report of its proceedings.

A number of well known entomologists were in attendance. In addition to the president, Dr. Riley, entomologist of the United States Department of Agriculture, and curator of insects in the United States National Musuem, and his principal assistant, Mr. L. O. Howard, who acted as secretary, we may mention : Dr. J. A. Lintner, State Entomologist of New York ; Professor S. A. Forbes, State Entomologist of Illinois ;

Professor A. J. Cook, entomologist of the agricultural experiment station of Michigan and professor of entomology in the Michigan Agricultural College; Professor William Saunders, director of the experiment stations of Canada and author of the well-known "Saunders' Insects Injurious to Fruits and Fruit Trees;" Professor Lawrence Bruner, entomologist of the experiment station of Nebraska; Professor J. P. Campbell, entomologist of the experiment station of Georgia: Professor C. P. Gillette, entomologist of the experiment station of Iowa; Dr. R. Thaxter, entomologist and botanist of the experiment station of Connecticut; Professor H. Garman, entomologist of the experiment station of Kentucky; Professor W. B. Alwood, entomologist of the experiment station of Virginia; Professor O. Lugger, entomologist of the experiment station of Minnesota; Professor M. H. Beckwith, entomologist of the experiment station of Delaware; Messrs. W. H. Ashmead, E. A. Schwarz, M. L. Linell, C. L. Marlatt, Tyler Townsend and T. Pergande, assistants in the Entomologist Bureau at Washington; C. R. Dodge, the Agricultural Editor of the *Weekly Press*, who was formerly connected with the entomological work at Washington, and several entomologists who do not occupy official positions.

The main objects of the gathering were to discuss plans for co-operation, to exchange ideas as to methods of work, to discuss the desirability of uniformity of methods in certain kinds of experimentation so as to render results more readily comparable, to talk over late discoveries and to compare notes generally. Washington, with its large collections, its libraries and its large number of resident entomologists, including a flourishing entomological society, was well chosen as a place of meeting, and from every point of view the meeting was a success. Its sessions lasted three days, the 12th 13th and 14th, and many important topics were discussed and several valuable papers were read. To some of these we may briefly refer.

Professor Garman, of Kentucky, read a paper entitled "The Bordeaux Mixture as an Insecticide," in which he detailed recent experiments which had proven that the mixture in question (sulphate of copper and lime) not only acts as a fungicide in remedying grape mildew and black rot as well as potato rot and scab, but that it also both deters and destroys the insects infesting these plants, so that one application of the mixture to potatoes, for instance, will not only prove a remedy for the rot but also for the flea beetle and Colorado beetle.

In commenting upon this paper Professor Riley mentioned the facts concerning the discovery of the fungicide properties of this mixture which he had learned the past summer in France, and which are not known in this country. It was accidental. For years the vinegrowers near Bordeaux had been in the habit of poisoning their outer rows of vines with this mixture to deter thieves. On the appearance of the mildew (peronspora) some years ago, it was noticed that the outer rows did not suffer, and it was not long before it was discovered that the poisoning was the cause of the immunity, and this particular mixture has since remained at the head of the cheap remedies for many fungous diseases.

The important topic, "How far shall we recommend Patent Insecticides and Machinery," was brought up by Professor Cook, of Michigan, and occasioned an animated discussion. All of the participants had received patent nostrums by the score from the inventors or manufacturers, with request for examination and test and recommendation if the test proved favorable. A very healthy sentiment against fraud and even against unnecessarily high-priced merit was evinced, and it was finally unanimously agreed that the proper policy among official entomologists is not to recommend, even by mention, any patent insecticide until by chemical analysis and careful field test it is found to be either superior to or cheaper than and, at least, as good as the well-known and generally recommended non-patented mixtures used for the same purpose.

Professor Gillette, of Iowa, brought out some interesting points in a paper entitled "Spraying Points," which summarized careful experiments with the different watery arsenical mixtures upon the foliage of fruit trees, and which was very timely, in view of the recent general adoption of these solutions against the codling moth and plum curculio. He concluded that white arsenic freshly mixed in cold water does less damage to foliage

than any other arsenical mixture, but when boiled in water before dilution it is the most injurious to foliage, showing plainly that it is the dissolved arsenic which burns the leaves, since in a cold, fresh mixture less than 1 per cent. of the arsenic is actually dissolved. Paris green, his experiments showed, injured the leaves more than the cold, white arsenic mixture, and London purple more than the Paris green, but both were less harmful than the boiled solution of white arsenic. All mixtures were of uniform strength, and the tests were most carefully made.

Professor Cook agreed with Professor Gillette as to the relative merits of Paris green and London purple, but Professor Riley and Dr. Lintner were inclined to stand by London purple on account of color, price and well-proven value.

A discussion of great importance to the members of the association was started by Professor Forbes, of Illinois, in a paper on "Office and Laboratory Organization. Professor Bruner, of Nebraska, presented a paper on the corn root-worm, which he instanced as a striking example of the ever-recurring change of habit among insects, which is continually making new pests from heretofore unnoticed species.

The topic of co-operation was long and thoroughly discussed and many valuable suggestions were made, and the outcome was that a committee, consisting of Professors Riley, Forbes and Cook, Dr. Lintner, and Professor J. H. Comstock, of Cornell University, was appointed to consider and report to the next annual meeting upon a method or methods to secure co-operation among the members of the association.

Other papers were read of a more technical character and consequently of a less general interest, and when the hour of adjournment arrived on the evening of the third day it was found that the programme had not been finished, and the members separated with regret to take up once more in their respective States active warfare against the great and ever-increasing armies of insect pests.

POPULAR AND ECONOMIC ENTOMOLOGY.

WINTER COLLECTING.

In the continuous chain of nature, great interest will be found at every link, and things unexpected, strange and of marvellous beauty will appear at every point. Even in Canada, snow and ice-bound for so many months in the year, there is much collecting which can be done in the winter. A favorite occupation of the writer is to go off collecting with a congenial companion upon snow-shoes. The charm of this pleasant exercise, in which, supported by the light snow-shoes, one can visit places inaccessible during the summer, is in no way diminished by being able to take home with you specimens which will afford ample occupation for many evenings. Starting off in a straight line, many objects of interest are met with as we go along across fields and fences, through woods and swamps and over rivers, hills or even mountains, all levelled and smoothed down to an even surface by their thick covering of ice and snow. In passing through the woods and swamps, cocoons are eagerly looked for on the slender boughs of trees and shrubs. It is seldom that we are not rewarded with cocoons of the large Emperor moths. In crevices of bark and beneath moss, many hibernating insects are discovered of several orders; larvæ of moths and chrysalids of butterflies, bettles and hemiptera. One of our annual trips is to a certain tree for the pretty little homopteron, which forms galls on the leaf of the hack-berry, (*Psylla celtidis-mamma*, Riley) and which passes the winter in a torpid state beneath the scales of the bark of the hack-berry, the color of which it closely resembles. In passing through the swamps, tufts of moss are pulled from any exposed hummocks, to be picked to pieces at home when they have thawed out. There will be found many treasures which we have not found in any other way. Every cluster of leaves adhering to a deciduous tree, or swelling upon a stem, has to be examined for the cause, and if it prove to be the work of insects, must be put into the bag for examination. The only apparatus necessary for these expeditions is a bag slung over the shoulder and a stick with a hook on one end and a spike on the other. The bag acts as

a large pocket, and saves the inconvenience of unbuttoning your coat when perhaps the thermometer is below zero. The hook on the stick is useful for pulling down boughs or pulling yourself out of a hole ; the spike for prying off pieces of bark or digging into old stumps.

Objects of great interest, some of which can be better collected, and from which the insects can be more successfully bred when collected in the winter time, are the various kind of plant galls. These require little trouble ; all that is necessary is to put them away in glass jars and keep them closed. After a time the occupants begin to emerge. and to the surprise of the uninitiated, although each kind is made by only one kind of insect, from the galls will be produced perhaps half a dozen distinct species. These are most of them parasites upon the gall-maker, or what are known as the inquilines or guest flies. The gall-maker produces the gall upon the plant. In this gall some of these guest flies deposit their eggs, and the young grubs feed upon the substance of the gall, or others again live as parasites, either upon the grubs of the gall-makers or their guests. Watching these as they emerge, and making notes upon them, will be found most entertaining at a time of the year when there is little active life out of doors. A further zest is added to this department of study from the fact that so little has been done in this line that many of the flies so bred will be new to science.

Other places which may be visited in the winter are groves of evergreens, where much will be found to repay the collector. Amongst the leaves of the pines are cases of larvæ, and on the leaves themselves are the burrows of the caterpillars of a tiny moth. Beneath the bark are numerous scolytid bark-borers, and from the solid wood beneath may be extracted the large grub of the timber-borers. To obtain these last, however, an axe will be found necessary. In the garden the horticulturist will find plenty of work with which to occupy himself profitably. The egg mosses of the tent caterpillar should now be collected and destroyed, as well as those of the tussock moths. Clusters of dead leaves should be removed from apple trees, and thin stems cleared of the scales of the oystershell bark-louse and other small insects which winter in rough places on the bark or amongst the buds.

In addition to the above work out of doors, much is to be done during the winter to prepare for the work of the coming season. Apparatus and storing boxes for specimens should be prepared well beforehand, or perhaps when the time comes to use them opportunities will be lost. Some simple elementary book should be procured and read at leisure. In our library at London we have for the use of our members, many books of this nature, which can be borrowed by applying to the librarian. We should recommend to beginners, Kirby & Spence's Entomology, Packard's Entomology for Beginners, and Comstock's Introduction to Entomology.

THE APPLE TREE TENT CATERPILLAR. THE AMERICAN LACKEY MOTH.

(*Clisiocampa Americana*, Har.)

There are two kinds of caterpillars which every year commit serious depredations in our Canadian apple orchards, although they by no means confine their attentions to that tree. These are the larvæ of the American and Forest Lackey moths, two species of brown moths which frequently fly into houses at night during July, and draw attention by their headlong, reckless flight, dashing themselves against the ceiling and the walls and very often finishing up by getting into the lamp chimney. Speaking generally, there is a great resemblance between these two insects in appearance and habits, and the same remedies are applicable for both. When examined carefully, however, they differ considerably in all their stages, and may be easily recognised.

They belong to the *Bombycidæ* or Spinners, a family which contains the silk worm moths and several other thick-bodied hairy moths, with large wings but small heads, bearing pectinated antennæ, and having the mouth parts imperfect, or as in those now under consideration not developed at all. The caterpillars of the *Bombycidæ* are usually hairy or tufted, and when full grown spin a cocoon for the protection of the short thick chrysalids.

At fig. 3 the different stages of the American Lackey moth are given. This species appears in the perfect state in the beginning of July, about a week earlier than the other species referred to above, which is known by the name of the Forest Tent Caterpillar. (*C, disstria,* Hub. *C. sylvatica,* Har.)

Fig. 1.—Female.

Fig. 2.—Male.

The American Lackey moth (fig. 1 female, fig. 2 male) is a pretty species of a dull but rich reddish-brown color, having the upper wings crossed obliquely by two clear whitish parallel lines. In rare instances these show faintly on the lower wings also. The fringes of the wings are of the same color as the oblique lines. The space enclosed between the light lines is paler than the rest of the wings in the males, but of the same color or rather darker in the females. On the under side all four wings are crossed by a well defined irregular whitish bar. The perfect insects, having their mouth parts undeveloped, partake of no food, but devote the whole period of their short lives to the perpetuation of their kind. As soon as they have paired and the females have laid their eggs, they die. The eggs (fig. *c*) are deposited in rings upon the smaller twigs of various trees, usually

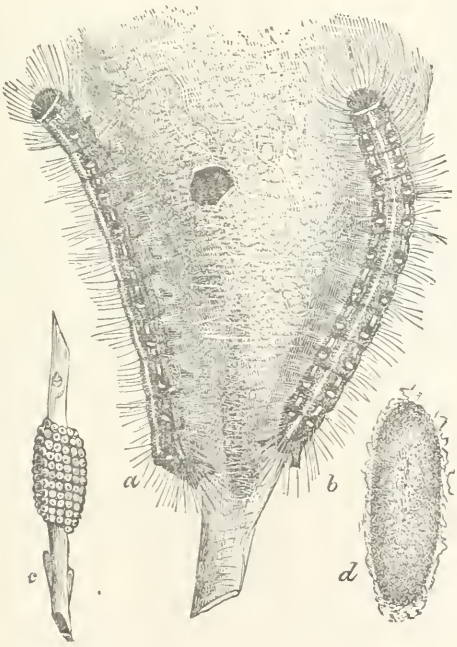

Fig. 3.

within a short distance of the tips. Each egg-cluster contains from 200 to 300 eggs, which when laid are covered with a liquid glutinous substance, which soon dries and cements them firmly together, and protects them from rain and the weather.

A surprising point in the life-history of these insects, is that about a month after the eggs are laid the young caterpillar is fully formed inside the egg, and it remains in this condition all through the winter, only eating its way out of the egg in the following

spring, when the leaves expand. Immediately upon hatching, the young caterpillars consume the glutinous covering of the eggs, and then lose no time in attacking the foliage. They at once begin the construction of their tent, which is a web of fine silk, spun in the nearest fork of the twig upon which they were hatched. This tent is increased in size as the caterpillars grow, and if left undisturbed is sometimes nearly a foot in diameter. The caterpillars are very regular in their habits, marching out in regular processions, each following close behind the one in front of it. From the habit of the larvæ of this genus of marching out in bodies to feed, they are known in Europe as "processionary caterpillars." When their appetites are satisfied, they return again to their tents to rest. They do not feed at night nor in stormy weather. They usually do not leave their tent until after nine in the morning, and have all returned before sundown. They are generally inactive in the middle of the day. When full grown the caterpillars are two inches in length, and beautifully marked with black, white, blue, yellow and brown, in the pattern shown in fig. 3, *b*. The continuous stripe down the back is white, and serves as a distinctive mark by which this species can be at once known from the Forest Tent caterpillar, (fig. 4) which has this dorsal stripe broken up into spots. This

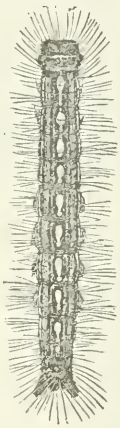

Fig. 4.

Fig. 5.

latter also differs in not constructing a tent, but merely spins a mat of silk on the side of the tree or upon one of the large branches, on or near which it lives more or less in community; but it has not the same social habits as its relatives. Just before they spin their cocoons the caterpillars wander very much, seeking a suitable place. The cocoon (fig. 3, *d*) is greenish yellow, and contains a powdery material like powdered sulphur. The moths emerge in about eighteen or twenty days after the cocoon is made.

Remedies.—The most successful remedies with these insects are undoubtedly hand-picking. During the winter the egg-clusters (fig. 3 *c*, and fig 5) can be easily collected and destroyed. They are always laid upon the small twigs and near the tips, so that if a dull day be chosen they can be easily detected against the sky, and can then be cut off and burnt, when of course that tree is exempt from attack until eggs are laid again the next year. If this precaution is neglected, the nests which are conspicuous objects, before the foliage is fully expanded in spring, must be cut off and destroyed. An invasion from neighboring trees can be prevented by tying a strip of cotton batting around the trunk, which the caterpillars have difficulty in climbing over.

CUT-WORMS.

Of all the injuries committed year after year upon field and garden crops, none are more annoying than those due to the ravages of the various caterpillars known as Cut-worms. These are the larvæ of dull-colored, active moths, belonging for the most part to the three genera, *Agrotis*, *Hadena*, and *Mamestra*, and in North America alone consti-

tute an army of no less than 340 different described species, many of which are, at times, very abundant. They may be described, in a general way, as smooth, almost naked, greasy-looking caterpillars, of some dull shade of color similar to the ground in which they hide during the day. The head is smooth and shining, and sometimes of a different color from the rest of the body. On the segment next to the head is a smooth plate, known as the thoracic shield, and there are three or four series of bristle-bearing tubercles along the sides. Their habits are nocturnal, that is, they feed at night and lie hid during the day-time. The habits of most cut-worms are as follows :—The eggs are laid in spring, summer or autumn, and the insects pass the winter either in the perfect moth state, as a half-grown caterpillar, or as a chrysalis. Those which hibernate as moths, lay eggs in the spring and moths are produced in the autumn. The eggs which are laid in summer and autumn hatch soon after, and the caterpillars either become full fed the same season and pass the winter underground in the chrysalis state, or, after feeding for a short time, become torpid, and so pass the winter beneath stones, heaps of dead vegetation, or in cells beneath the surface of the ground. The injury done by the young caterpillars in the summer and autumn is seldom noticed at those seasons, on account of the abundant vegetation ; but, in the spring, not only are the caterpillars larger and capable of more mischief, but the land is cleared of all vegetation other than the crop which is to be grown. They are then particularly troublesome in gardens, cutting off young cabbages, tomatoes, and other plants as soon as they are pricked out. When full fed, these caterpillars burrow into the ground to a depth of some inches and turn to brown chrysalids inside a smooth cell or a light cocoon, Fig. 6. From these, after a few weeks, the perfect moths emerge. They are very active at night, and, when disturbed, have a habit of dropping to the ground and remaining perfectly still as if dead, where, from their dull colors, they are difficult to detect. When at rest, their wings lie horizontally over their backs, and the upper ones entirely cover the lower pair. The upper wings are generally crossed with one or more waved lines, and always bear two characteristic marks—one about half way down the wing, orbicular in shape ; the other nearer the tip, reniform or kidney shaped. Fig. 7 shows "The Gothic Dart Moth" (*Agrotis subgothica*, Haw.,) with wings closed and expanded ; this is a very common and injurious species, the caterpillar of which is too well known as the "Dingy Cut-worm."

Fig. 6—Cocoon.

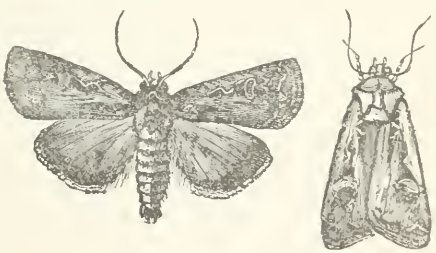

Fig. 7—Gothic Dart Moth.

Cut-worms may be divided into three classes, according to their habits, and remedies must be applied in a slightly different manner for each. These classes are :—

1. Climbing Cut-worms, or those which climb trees and destroy the buds.

2. Surface Cut-worms, or those which live on the surface of the ground and cut off herbaceous plants just beneath the surface of the soil.

3. Those which combine both of these habits.

Fig. 8—Amputating Brocade Moth.

Of the first class, a good representative is the Climbing Cut-worm (*Agrotis scandens*, Riley). The Dingy Cut-worm, the caterpillar of the Gothic Dart Moth (Fig. 7) belongs to the second class, and the "Variegated Cut-worm" (*Agrotis saucia*, Treit.), and the "Yellow-headed Cut-worm," which turns to the "Amputating Brocade Moth" (*Hadena arctica*, Bois.) (Fig. 8) are good representations of the third class.

Remedies.—There are several remedies which may be used for cut-worms. For the climbing kinds, the best remedy is to place round the stem of the tree or bush to be protected, a strip of tin four inches wide, the lower edge

can be pressed into the ground, and the tubular shape is easily preserved by securing it above with a piece of twine. This will effectually keep all cut-worms from the tree, for these heavy-bodied caterpillars are unable to crawl over the smooth surface. A similar expedient is to tie a band of cotton batting around the stem, as the caterpillars cannot crawl over this yielding material.

For surface cut-worms the most efficient remedies are the following :—

1. Keeping down all weeds in late summer and autumn, so as to deprive those species which hatch in the autumn of their food supply and winter shelter.

2. Burning off all the stubble and rubbish as late as possible in spring, when many caterpillars and the eggs of some species will be destroyed.

3. Placing some substance with an obnoxious odor around young plants when first set out, as fresh gas-lime, or sand or sawdust saturated with coal oil or carbolic acid.

4. Wrapping. Young plants may be protected in a large measure by simply wrapping a piece of paper around the stems at the time of planting.

5. Tomato cans with the tops and bottoms cut out, placed over the young plants, or strips of tin as suggested for Climbing Cut-worms, will be found to well repay the trouble and expense of procuring them.

6. Kerosene emulsions. Where these caterpillars occur in very large numbers, spraying infested beds with a kerosene emulsion at night has been found very beneficial.

Fig. 9—Fiery Ground Beetle.

7. Traps. Placing bundles of leaves or grass, poisoned with Paris green, between the rows of infested beds has been found a useful means of destroying large numbers of these pests.

8. Hand picking. When a plant is seen to have been eaten off, of course the cut-worm should always be looked for and destroyed. They will generally be found close to the root and about an inch beneath the surface.

In addition to the above artificial remedies, nature has provided the farmer with many useful and active assistants in the shape of various predaceous insects. Conspicuous amongst these are the Ground Beetles, which should be known by sight by every one, so that they may be protected, and not, as is often the case, destroyed *because they are insects.* At Fig. 9 is shewn the " Fiery Ground Beetle " (*Calosoma calidum* Fab.), a common and very useful species. Its color is deep black with red (or sometimes green) glowing spots. The grub has been styled the " Cut-worm Lion," on account of its useful habits of destroying these pests.

THE IMPORTED CURRANT SAW-FLY—(NEMATUS RIBESII, SCOP).

Amongst insects which every year make their presence noticeably apparent by their injuries, and thus win the distinction of being " First-class Pests " to the fruit-grower, not one, perhaps, is better known, nor, when not checked in its operations, more annoying, than the currant worm, the larval state of the imported currant saw-fly, *Nematus Ribesii*, Scop. (= N. ventricosus, Klug).

This is a European insect, which, although it has only been noticed in America for thirty years, has already spread over a large proportion of the settled parts. Early in the spring when the buds are bursting upon the currant and gooseberry bushes, active yellowish four-winged flies will be seen flying around the bushes or crawling over the unfolding leaves. These are the parents of the currant worms. The two sexes differ a good deal in appearance. At Fig. 10 they are both represented enlarged. The hair-lines at the sides show their natural sizes. The male is shown at *a*. It is slightly the smaller, and is much darker in color. The head and thorax are almost black, with some

dull yellow spots. The abdomen is dark above but yellow beneath and at the tip. The wings are glossy with dark veins. The males are equally abundant with the females, but are not so often observed, from the fact that they are seldom found on the bushes, but fly near the ground and beneath the bushes as if to welcome the females when they emerge from the soil, beneath which they have passed the winter in their snug cocoons. The females are larger than the males, and of a bright honey-yellow color.

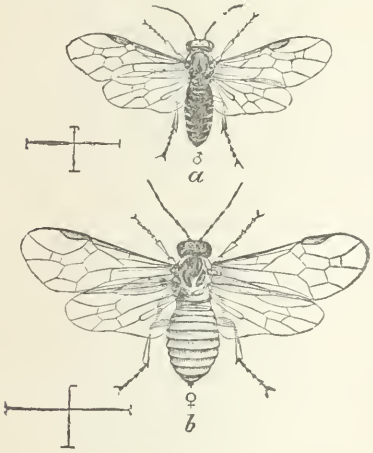

Fig. 10.

Fig. 11.

The greenish-white glossy eggs which are about one-twentieth of an inch in length are laid along the main ribs, beneath the leaves of gooseberries and currants, as shown at Fig. 11 (1). As soon as the young larvæ hatch, they at once attack the leaves upon which the eggs are laid, and eat small holes, as shown in Fig. 11 (2 and 3). They are very voracious, and their growth is very rapid indeed, little more than a week sufficing for them to pass through all their stages. These characteristics added to the large number of eggs laid by each female, make constant vigilance on the part of the fruit-grower a necessity, or he will find his goose-berry and currant bushes stripped of every leaf in a few days.

When the young larvæ come out of the eggs, they are about one-twelfth of an inch in length, with large heads and a semi-translucent body. At first they all remain on the same leaf, but as they grow large they separate and spread in all directions over the bush. They are green at first, then dark bluish green, covered with small black dots, each one of which bears a bristle, and lastly, after the last moult, pale green with yellow extremities.

When full grown they spin smooth oval brown cocoons, which, however, are sometimes of a greenish white colour. Those of the summer brood are generally on or near the surface of the ground, but at a considerable depth beneath it in the brood which passes the winter inside cocoons. The chrysalis state is assumed at once in the summer brood, and the perfect flies appear in about a fortnight. The autumn brood, however, passes the winter in the larval state inside the cocoons, and the larvæ only change to chrysalids a short time before the flies appear in the spring.

Notwithstanding that this insect is attacked by a host of parasitic enemies, it is generally necessary for the fruit-grower to apply active remedies. Of these, "white hellebore" is the best. One or two ounces of this powder mixed in a little hot water at the bottom of a pail, and then filled up with cold water, will give a sufficient quantity of the mixture to sprinkle a large number of bushes. This is most conveniently done with an ordinary clothes whisk. The powder may also be used dry; when mixed with four times its bulk of common flour, it should be puffed over the bushes after rain, when the dew is on them, or after they have been sprinkled with water. This is most conveniently done

by means of the small hand-bellows, now obtainable at all chemists. With regard to the danger of using this material, I will quote from an excellent and very complete article upon this subject by Prof. W. Saunders, which appeared in our Ent. Soc'y, of Ont. Rep. for 1871-2, p. 32.

"It has been urged against hellebore that it is poisonous, and great outcries have been raised against it on this account. It is quite true that hellebore is poisonous when taken internally in quantities, but if used in the manner we have indicated, no fear need be entertained of the slightest injury resulting from it. Examined immediately after a thorough sprinkling with the hellebore mixture, the quantity on any bunch of fruit will be found to be infinitesimal, and the first shower of rain would remove it all. If it be found necessary at any time to apply the mixture to bushes where the fruit is ripe and just ready to be picked, it might then be washed in water before using, which would readily remove every trace of the powder. During the past ten years many thousands of pounds of hellebore have been used in Europe and America for the purpose of destroying this worm, and we know of no case on record where injury has resulted from its use."

Another insect of the same family, and with very similar habits to the above, is the Larch Saw-fly, *Nematus Erichsonii*, the larvæ of which are now spreading rapidly over the Eastern United States and Canada. I have received inquiries concerning it from several of our members in different provinces of the Dominion, particularly from Nova Scotia and Quebec. The eggs of this species are imbedded in the soft wood of the young shoots of the tamarac when growth first begins in June. The growth is stopped on the side where the eggs are deposited, and the twig becomes distorted and is eventually destroyed. This injury, however, is slight compared with the destruction of the foliage. There are at the present moment in Canada, from the Atlantic coast as far west as Ottawa, thousands of acres of tamarac entirely stripped of their leaves. On another occasion a fuller account of this injurious insect will be given.

THE TIGER SWALLOW-TAIL BUTTERFLY. (*Papilio Turnus, L.*)

Just about the time the lilac bushes open their fragrant blossoms the grand insect shown at figure 12 may be seen either hovering over gardens and sipping the nectar of flowers, or sailing majestically down some woodland glade. It generally appears at

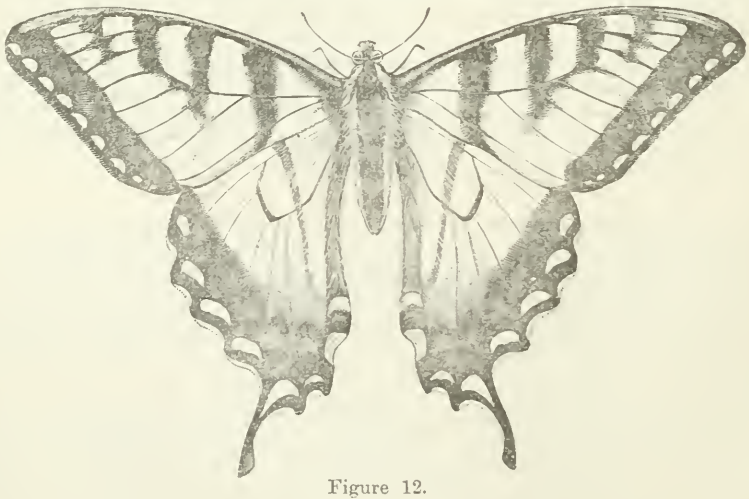

Figure 12.

Ottawa about the first of June, and may be seen for a month or more. Farther to the north it comes later, not appearing at Nepigon, north of Lake Superior, until the end of June. This insect has many characters which make it of interest to the collector. Its

size and beauty make it a striking object in the spring landscape. Although it varies in abundance in different years, it is generally one of the first treasures of the young collector, and is prized accordingly. The variations it presents in different latitudes and the habits of its remarkable caterpillar are of great interest to the student. In the north, including the whole of Canada, the males and females are like our figure, having the ground colour of a pale lemon-yellow, with rich black markings. The broad margin is more or less powdered with blue scales, particularly on the hind wings, which are further ornamented with a conspicuous orange-red spot, bordered with black and blue, near the hind angle, and in the females there is another large spot of the same colour at the upper angle. In the Southern States the specimens of both sexes are larger and more highly coloured, and besides a black dimorphic form of the female also occurs. No specimen of the black male has ever been taken. The only approach to this melanic form is the beautiful suffused variety which is figured below. The range of the Tiger Swallow-tail is very extended. I have some specimens from the arctic circle and others from the tropics, while from east to west it occurs from Newfoundland to Alaska. The eggs are laid by the females singly on the upper side of the leaves of its food plants. They are about one-twentieth of an inch in diameter, sub-globular and smooth, at first of a pale transparent green, much yellower at the base by reason of a more or less abundant waxy substance which fastened them to the leaf; after a few days they turn reddish, and just before the young larvæ hatch they are almost black. The time of hatching varies with the weather from ten to twenty days. The caterpillars are very different in appearance during their various stages. In the first stage the general appearance is black, with white spots and tubercles, and a conspicuous white saddle-shaped mark on the back. This mark also appears after the first and second moults, but is then of a pinkish cream colour. After the second moult the ground colour of the body usually changes to greenish brown. After the third moult the green colour is much more decided, and the caterpillar assumes more of the shape and markings of the full-fed larvæ. The thoracic segments are now enlarged and the saddle-shaped mark is almost obliterated. There is a yellowish band in front of segment 2, and another on the hinder edges of segments 5 and 12; that on five is followed closely by a black line on the front edge of segment 6. This black line does not show when the caterpillar is at rest. The head is pink brown. On each side of segment 4 now appears a pear-shaped yellow eye-like spot, the larger end outwards. This spot is edged by a fine black line; inside there is a heavy black line enclosing a violet spot. Towards the smaller end of this yellow spot is a short black bar. The sides of the body are also ornamented with rows of violet spots, two upon segment 4, and four upon 5, 8, 9, 10 and 11, and two upon 12. On segments 6 to 11 there is one small spot below each spiracle. These spots are more distinct upon some specimens than upon others.

After the fourth or last moult the colour is invariably velvety green, paler beneath, the saddle-shaped mark has disappeared and the yellow marks are all more conspicuous. The full-grown caterpillar is shown at figure 13, and is a formidable looking creature. For two days before it suspends itself to change to the chrysalis, it gradually assumes a purplish brown tint, and the violet spots become more distinct than they were before. The full-grown larva is about one inch and a-half in length when walking. When at rest it is shorter and thicker, the head is drawn out of sight and the body assumes a wedge shape, large in front, tapering rapidly to the last segment. When in this position the yellow spots on segment 4 have the appearance of two large open eyes. This appearance may possibly act as a protection from some of its enemies. When ready to turn to a chrysalis, it leaves its food-plant and seeks some place to pupate. It suspends itself to a silken mat and supports its body by means of a silken girdle around the middle. It changes to a chrysalis the second day after suspension. The newly formed chrysalis is very beautiful, being mottled with green, dove colour, black, and white, the two eye-like spots on segment 4 being very distinct. After a few hours, how-

Figure 13.

ever, the green nearly all fades out and the chrysalis darkens to the tint of dead wood. In all parts of Canada there is only one brood of this butterfly. The eggs are laid in June and July and the caterpillars pupate late in the summer and go through the winter in the chrysalis state. The habits of the caterpillar are sluggish. From the first they spin a mat of silk to rest upon when not eating and sally out to feed. When very young they eat into the edge of the leaf upon which they hatch ; but as they grow larger they crawl away to other leaves near at hand, and return again to rest upon the same leaf, all the time there is food at a convenient distance ; when this is all consumed they move off to a fresh branch and start another centre of operations. This mat is so spun as to curl the leaf up somewhat and form a platform, so that in case of rain the caterpillar is raised above the wet leaf. When disturbed they have a special means of defence, in the shape of an orange forked scent-organ, which they can protrude at will from an orifice in the second segment. At the same time a strong pungent odour is emitted. The caterpillars possess this organ in all their stages, but seldom use it except in the last stage. The food-plant of this insect is very varied. In this district it is most frequently found upon apple, cherry, ash, birch and aspen trees.

Figure 14 represents a very beautiful suffused melanic male, which was taken in

Figure 14.

July, 1888, by Mr. Robt. Mackenzie, at Collins Inlet, upon the Georgian Bay, eighteen miles east of Killarney, Ont. As this is the only approach to the black male which has so far been discovered, it has been thought well to have it photographed and engraved.* The specimen is in very fine condition, the black and yellow clear and unfaded. The red eye-spot at the anal angle is distinct, and there is another between the extremities of the second and third median veinlets of the hind wing. A few scales of blue shadow the spot at anal angle. There is a conspicuous cloud of the same colour between the second and third median veinlets and a smaller one between the first and second. At the apex of hind wing there is a light cloud of red scales, and a slight tinge of red between the extremities of costal and first subcostal veins.

*The photograph was taken by Mr. H. N. Topley, of Ottawa, by the new Isochromatic process, and the engraving was made directly from the photograph.

A NEW CLOTHES BEETLE.

BY PROF. A. J. COOK, AGRICULTURAL COLLEGE, MICHIGAN.

One of the most interesting studies of the scientific entomologist—more interesting because of its economic importance—relates to variation of habits of insects consequent upon variation in their environment. The Carpet Beetle—*Anthrenus scrophulariæ* Linn., feeds on flowers in its native Europe. In the new atmosphere of America it feeds and thrives upon carpets, shawls and other woolen goods. The Apple Maggot, *Trypeta pomonella*, feeds upon our wild haw and other wild fruits. Civilization exterminates its old-time aliment, and it betakes itself to our apples, cherries and plums. The curculio, apple tree borers, bark lice, etc., are other illustrations of the same truth.

The past season I have discovered another illustration in the *Lasioderma serricorne*, Fab. This insect belongs to the family *Ptinidæ*. A small family of very small insects. Very few of the insects of this family are noxious; the two best known of which are the apple tree twig borer, *Amphicerus bicaudatus*, Say, which bores in the mature state, in the twigs of the apple; and *Linoxylon basilare*, Say, which attacks the hickory and grape. The insect in question, *Lasioderma serricorne*, Fab., has been found to attack plush furniture. The larvæ in this case do the mischief. They perforate the plush making it like a sieve. I know of several pieces of upholstered furniture utterly ruined by these minute larvæ.

The beetle is light brown in color. There is little variation in the color except that the eyes and tips of the elytra are black. The wing covers appear a little lighter, because of a covering of light hairs which are more dense on the elytra than on the thorax and head. The thorax bends down, so that as we look from above we cannot see the head. The serrate antennæ, which give its name to the beetle, are also close bent under the head, so as to rarely show. The beetle is very small, hardly more than two m.m. long. The elytra are non-striated. The first two joints of the antennæ are small. They then increase to the sixth, and then decrease to the end. The tenth or last joint is rounded. The grubs are short, curled and hairy. They are two m.m. long and one thick. The color is white, and the hairs nearly white. These latter have a slightly yellowish tinge. The six thoracic legs are tipped with black. The upper part of the head shows four yellowish-brown lines. The upper ones are narrowest, while the lateral ones are abbreviated behind. The front of the head is brown, while the jaws and other mouth parts are nearly black.

Like all insects, these beetles—both as larvæ and imago—are very susceptible to gasoline or bisulphide of carbon. Both of these, used in large quantities, were quickly fatal to the insects. Like the Carpet Beetle, they infest upholstered furniture between the folds, especially where the back joins the seat. It is easy to drench such parts of a sofa or chair with gasoline and destroy the larvæ of either moth or beetle.

Nearly every year brings examples of such changes of habits as described above. Such incursions, present and prospective, emphasize the importance of thoroughly trained entomologists in every State of our country.

INSECTS INFESTING WILLOWS.

BY W. HAGUE HARRINGTON, OTTAWA.

The trees and shrubs belonging to the genus *Salix* of botanists, are not of such economic importance as many other of our native woods, but they are at least of sufficient value to receive some consideration from entomologists. About fifty species are recorded from Canada, many of which are arctic or mountain plants, some being shrubs

only a few feet, or even inches, in height. Some of the larger species which grow in less vigorous situations are trees of considerable size. About fifteen species are recorded from Ontario, including those which are planted as ornamental varieties.

Although the wood of the willow is soft, it is smooth and light and is adapted for a variety of purposes, such as making toys, handles of tools, cricket bats, etc. It also furnishes charcoal which is largely employed in the manufacture of gunpowder. The bark of many species is rich in tannin and also furnishes the crystalline substance called salicin, which forms the basis of the salicylic acid so largely employed in the treatment of rheumatism and gout, and as a tonic and febrifuge.

Some species, known as osiers, are largely used in basket making, and of late years the manufacture of household furniture—chairs, tables, baby-carriages, etc.—has become very important. Large quantities of osiers for such work are annually imported by America, which might without difficulty be grown at home.

In the Western States willows are largely employed for hedges and windbreaks, and they should be similarly used by the settlers in our North-West prairie lands. They are quick growers and can be easily propagated, and would be found of far more value than many of the trees and shrubs which are now being planted.

Some of the ornamental varieties, such as the Babylonian, or Weeping Willow, are widely grown, and form a decided addition to our list of trees for lawn planting, etc.

Hymenoptera.

The flowering of the various willows is one of the earliest visible signs that at last the long winter is ended, and that the warmer breath of gentle spring is re-awaking plant and insect life and quickening the pulses of all nature. Now to the opening pendulous spikes of bloom swarm various kinds of bees to sip the honey and to roll and revel in the golden pollen so abundantly produced, until they are themselves so bepowdered, and gilded as to be hardly recognizable. How they rejoice in the bountiful supply of this rich food, and how industriously they labor through the shining hours of the long spring days to transport the honied mixture to the holes and crannies where their prospective progeny are to lazily surfeit themselves with the good things so bountifully provided by the mother insects. In the warm days of late April and early May the air in the vicinity of willows is murmurous with the whirr of tiny wings, as the busy hosts come and go in endless and rapid succession. The majority belong to the genera *Andrena* and *Halictus*, small dark bees, more or less pubescent, those of the latter genus having sometimes the abdomen belted with bands of silvery white hairs. There are also numerous representatives of the genus *Osmia* ; small green or bluish bees, having a brush of stiff hairs beneath the abdomen for the collection of the pollen. We also find abundantly, pretty little red bees more or less marked with yellow, which belong to the genus *Nomada* and differ from the preceding species in having no provision for the transportation of food, and in being parasitic in their habits.

I will not take up space by giving a catalogue of the various species, as this paper is intended chiefly to enumerate the foes, not the friends of the willows, and to the latter class the bees fortunately belong. As we all know, the flowers of these trees are *dioecious*, that is, the male and female flowers are borne upon separate plants, and fertilization depends upon the agency of the wind or upon that of insects. In this work of fertilization the bees play an important part, as they fly all pollen-coated from tree to tree.

Saw-flies. (*Tenthredinidæ.*)

Turning from the industrious and useful bees we find another section of Hymenoptera, the larvæ of which feed upon the tissues of plants, and which has consequently been called Phytophaga, from the two Greek words *phyton*, a plant, and *phagö*, to eat. The name commonly applied to these forms is "Saw-fly," from the ovipositor of the female being modified into a saw-like instrument with which to slit the hard tissues of

the leaves or stems, preparatory to the insertion of the eggs. Figure 15 represents *Harpiphorus maculatus*, Nort., the Strawberry Saw-fly, in all its stages.

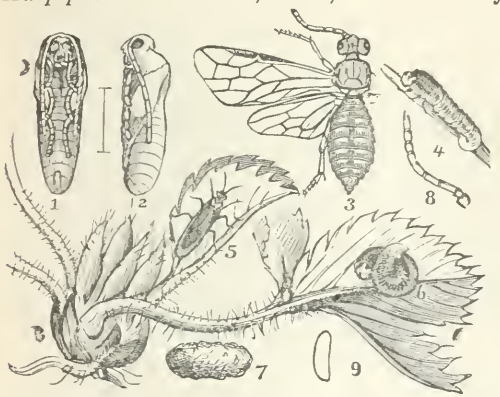

Fig 15.

The species found upon the various willows may be divided into two groups; those whose larvæ feed openly upon the foliage in its natural state, and those of which the larvæ subsist in concealment upon the substance of galls, produced by themselves, or by other insects, upon the leaves and twigs. Of the former group four species may be mentioned:

Cimbex Americana, Leach. This is the largest of all Canadian (or indeed American) Sawflies, and its larva is correspondingly voracious. The range of this insect extends from "ocean to ocean," and there are several varieties. In the typical form the male is nearly black; the head and thorax have a bluish tinge, and the abdomen a purplish one. The female is black with whitish or yellowish spots on the sides of the abdomen. Both sexes have yellow feet. The antennæ are also yellow, and consist of seven joints, the last three forming a knob. These saw-flies vary in length from three-fourths of an inch to one inch, and the male especially is a very formidable looking fly, with his long, toothed jaws and big clumsy legs. The egg is placed in a slit made upon the upper surface of a leaf, producing a small blister thereon. The larva is of a pale yellowish colour, with a black stripe running down the back, and black dots along the sides. When full grown it measures about an inch and a half in length, and spins a strong brown oval cocoon, which remains during the winter upon the ground under leaves and debris. In the spring the larva transforms to the pupa and the perfect insect appears in May or June.

I have found the larvæ chiefly upon the foliage of elms, but they also infest the linden and willow, and have sometimes been found very injurious to the last named. The following paragraph is quoted from the Report of the U. S. Entomologist for 1888, from a paper by Mr. Lawrence Bruner on Nebraska Insects:—

"Unless some disease or insect enemy soon appears in sufficient strength to diminish the large Willow Saw-fly (*Cimbex Americana*) it will completely destroy our hedges of white willow that grow upon the more elevated prairies. The enemy must necessarily be "natural" for the farmers will not look to the matter themselves. This year again the large slug-like larvæ of this insect appeared in even greater numbers than on previous occasions, and over much more extended areas. In some instances the wild willows also suffered when growing isolated and upon rather high ground. Several farmers followed my instructions and cleared away the debris along their hedges last fall, and burned it, and in that way destroyed the pupæ. Where these were isolated from other infested hedges the remedy was quite apparent, but where other pupæ were close at hand the work made no perceptible diminution in the number of larvæ present."

It is to be hoped that Canadian farmers in such a case would take vigorous and concerted action, and by annually raking up and burning the leaves and debris the evil would be largely overcome in two or three seasons, not only for this but for many other insects.

Trichiosoma triangulum, Kirby.—This is an insect of somewhat similar appearance, but of less size than the preceding, being about three-fifths of an inch long. The head and thorax are black, and the latter is clothed with long whitish hairs. The thighs are bluish-black, and the rest of the legs yellow. The wings have a yellowish lustre. The larvæ are similar in shape and habits to those of Cimbex, but somewhat smaller, and of a pale greenish colour, without the black stripe along the back.

Priophorus æqualis, Nort.—This is quite a small species, the perfect fly being hardly one-quarter of an inch in length. The larvæ, however, sometimes occur in sufficient abundance to seriously affect the foliage. They are of a pale yellowish colour, with the back greenish. The head and last segment are black and there is on each side a row of black spots, eleven in number. Upon the back and on each side are two rows of small tubercles, bearing long white hairs. The species is apparently double-brooded as from larvæ obtained in June the flies appeared a month later, and I have observed similar larvæ in August and September. Late last August I saw a small poplar nearly defoliated by larvæ apparently of this species, and two or three weeks later, found similar ones on willows. (Note. In the Fifteenth Annual Report I referred to this species as *Cladius isomera*, Harris, but further examination seems to refer it to *P. æqualis*. The larvæ of *C. isomera*, which also occurs here are, however, of very similar appearance and habits. The European species of this genus are recorded as feeding on willow, poplar, cherry, etc.)

Dolerus arvensis, Say.—One-third of an inch long of a shining blue-black colour, except the partly red thorax; wings smoky. Larvæ 22-footed grubs feeding in June.

Cephus integer, Nort., is an insect having the abdomen more compressed, and of a more generally elongated shape, which has been figured and described by Prof. Riley, (Insect Life, vol. i., p. 8) as injuring the young shoots of various species of willows in and near Washington. The female inserts the egg a few inches below the tip of the shoot, and afterwards girdles the twig. The larvæ bore down through the pith. The ravages are indicated by the wilting of the twigs, and a scorched appearance of the plants. The insect occurs in Canada but I have seen no mention of any attack by it.

For much of our knowledge of the species of saw-flies forming galls, or subsisting upon the galls of some other insects, we are indebted to Walsh, who bred many of the species, and described them in a paper published in the Proceedings of the Entomological Society of Philadelphia, Vol. V, page 284. He enumerates about a dozen species belonging to the genera Euura and Nematus. The galls produced by the former genus are upon the twigs, being usually enlargements or deformations of the buds, and may be readily found on examining our native willows *Salix cordata* and *Salix humilis*.

Upon the leaves of the same willows during the summer may sometimes be found in great numbers small galls varying in shape, but generally spherical or oval, which on being opened are found to contain small green larvæ, and which are produced by different species of Nematus. These insects, however are so much alike that any satisfactory description of them would be far too long and technical for the purposes of this paper. They are, however, closely related to the saw-fly so destructive to the currant and gooseberry bushes, and differ chiefly in being smaller and less robust.

There are also several species which are known as inquilines, or "guests," because they do not produce galls themselves, but subsist upon those formed by the species above named, or by certain small flies which will presently be mentioned.

There is another gall, not mentioned by Walsh, which is very abundant, not upon our native willows but upon *S. alba*, the common white or European willow. Sometimes nearly every leaf will be attacked, and perhaps will be almost covered by oval, or oblong sessile galls, which become reddish as they mature. They produce a very small fly, about one-sixth or one-fifth of an inch in length, and which is apparently the species called *Messa hyalina*, Norton. (Probably a European Nematus.)

Diptera.

The insects belonging to this order, which are found injurious to various species of willows, are all minute forms, such as are known as gnat-flies or midges, and the majority of them belong to *Cecidomyia*, to which extensive genus belong, also, the destructive clover-midge, Hessian-fly, etc. There are, however, several species of *Diplosis*, another group of midges, among which is found the wheat midge, which are uninvited guests of the Cecidomyiæ.

Everybody must have observed the large swellings at the tips of willow twigs, which bear so much resemblance to the cones of pines, or spruces. These are the result of the

operations of different midges, each of which makes its own distinctive gall. It is very strange that such abnormal growths should result merely from the deposition, in the terminal bud, of a microscopic egg by a tiny midge, yet it is the case, and on pulling one of the galls to pieces we will find snugly ensconced in a cell at the base a little pink or reddish maggot. The species which are the most abundant in this neighborhood are *Cecidomyia strobiloides*, O. S. and *Cecidomyia quaphaloides*, Walsh. As these galls are at the tips of the twigs, the growth of the shoots is stopped, and were the insects to become unduly abundant they might dwarf and deform the trees, as does occasionally happen when trees are growing in localities unsuited to them.

Fortunately the larvæ are not secure even in their woody dwellings, but are preyed upon by many species of minute hymenoptera, known as parasites, and belonging chiefly to the Chalcididæ. Several species may be bred from one gall; indeed Walsh enumerates more than twenty species of inquilines and parasites from the galls produced by *C. brassicoides*, Walsh, a species which is very abundant in some portions of Ontario, producing the cabbage-gall of the willow.

Lepidoptera.

This order has always been a favorite one with entomologists, as it contains the most beautiful of all insects; the butterflies and moths. The former are diurnal insects, that is, they appear during the daytime, rejoicing in the sunlight, and floating to and fro on gaily painted wing from flower to flower, the most brilliant or lovely of which cannot match in richness of colour, and exquisite markings, the painted wings of their nectar-seeking visitors. The moths are much more numerous as regards species, and some of them are so large and magnificent, as to be deemed worthy of such titles as Imperial and Regal, yet as they are chiefly crepuscular or nocturnal in their movements, they are not so well known to those who have not studied insect life.

Of about seventy-five species of Lepidoptera, of which I have records, as feeding more or less upon willows, only eight are butterflies. The only one of these which is ever found in much abundance is *Vanessa Antiopa*, L., the Camberwell Beauty. This butterfly hibernates during the winter, and is one of the first insects to be seen on the return of spring, flitting about in sunny glades or hovering around the tapped sugar maples. The female then lays its eggs in a cluster, around the small stem of a willow, the caterpillars from which feed in company upon the foliage, and from their numbers and voracious appetites they rapidly defoliate the plant. The full-grown larva measures from one and three-quarters to two inches in length, and is black, sprinkled with minute white dots; with a row of eight dark brick-red spots on the back, and beset with numerous black branching species. The caterpillar changes to a dark-brown chrysalis, sus-

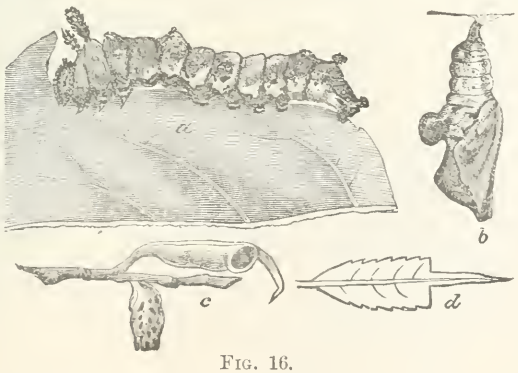

Fig. 16.

pended by the tip under some sheltering projection, and the butterfly appears about August. As this species also attacks the elm and other trees, it might be a most injurious insect if it were not subject to the attack of a minute parasite, which sometimes destroys nearly every chrysalis, and which is so prolific that I have counted more than

400 from a single chrysalis. The butterfly is a beautiful object, of a rich velvety purplish brown, the wings being broadly margined with yellow, in which is a row of pale blue spots.

The various species of Limenitis also include the willows in their food-list. This is especially the case with *Limenitis disippus*, Godt., which also feeds on poplar, plum, oak and apple. During the summer of 1888 it was sufficiently abundant in this neighbourhood to be considered injurious. The beautifully reticulated eggs (Fig. 18, *a*) are laid late in June, or in July, and hatch in a few days. The caterpillar (Fig. 16 *a*) is of a curiously ornamented form and is variegated with green and whitish colours. The chrysalis is suspended like that of *Antiopa*, but is of a very different shape, (Fig. 16, *b*.,) having upon the ventral surface a projection like the centre-board of a yacht. The butterfly issues in ten or twelve days, and the eggs are then laid for a second brood. The larvæ hatched from these, when about half-grown, construct from the leaves neat little cases (Fig. 16, *c*) in which to spend the long, cold winter, and from which they emerge the following spring to complete their growth and metamorphoses. The butterfly (Fig. 17) has a black body, and wings of a warm orange-red colour, with heavy black veins, and a wide, black margin, spotted with white.

Fig. 17.

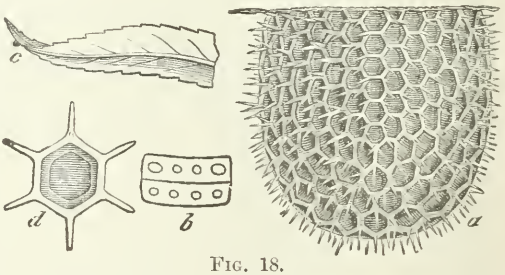

Fig. 18.

Limenitis arthemis, Drury, occasionally feeds upon willows, and in the appearance and habits of the caterpillar closely resembles the previous species. The butterfly, however, is a much handsomer insect, being of a rich velvety purple, with a broad, white band across the wings, the margins of which are ornamented with markings of red and blue. Its graceful flight and rich colouring render it one of the most beautiful of our butterflies.

As the other butterflies which have been recorded as feeding upon willow are only occasional depredators, or are not found in Ontario, I will pass on to the division of the Lepidoptera which contains the moths, the species of which are far more numerous. Of the Sphingidæ, or hawk-moths, two species of Smerinthus are reported to include the willow in their list of food plants. *Smerinthus excæcatus*, Abb., feeds upon several species of willows and poplars, as well as on birch, elm, hazel, etc. The larva when full-grown is about two inches in length ; of a light green colour, and roughened with numerous white granulations. There are seven oblique yellow lines on each side, and the anal segment bears a nearly straight rose-coloured horn ; a similar horn being a distinctive feature of nearly all the caterpillars of the Sphingidæ. When mature the larva drops to the ground and pupates therein as a dark chestnut-brown, tolerably smooth chrysalis. The moth is of a very pretty fawn colour ; the head and thorax with a roseate tinge ; the body with a dark-brown line above ; the wings scalloped on the hinder margin, clouded with brown, and with black and brownish-red spots and patches. Each hind wing has an ocellus, or eye-spot, of pale blue in a black ring.

Smerinthus geminatus, Say, much resembles in its various stages the preceding species, but the eye-spot has two or three blue pupils, whence the specific name, which means twin-spotted.

The Bombycidæ, or silk-spinning moths, furnish us with some very large and beautiful species, the most striking, indeed, of all our insects, whether in the caterpillar or perfect state.

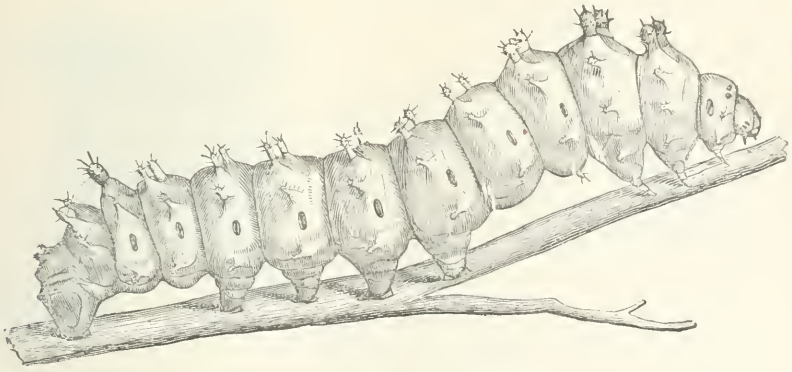

Fig. 19.

Samia cecropia, L., is known by all fruit growers as a depredator upon apple, plum, and other trees. The caterpillar (figure 19) is, when full grown, fully three inches long, and its bright colours and curious spined tubercles render it a very striking and interesting object. The moth, like those of the three following species, has been frequently figured in our reports.

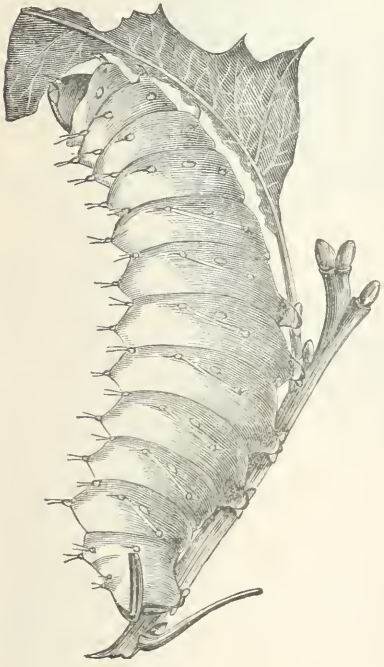

Fig. 20.

Telea polyphemus, L., the larva of which is shown in Figure 20, is a somewhat smaller and more modestly colored moth, and the caterpillar has not such a formidable appearance. It is, when fully grown, about three inches long, and correspondingly stout, of an apple green color, and ornamented with bright colored tubercles and short lines. It feeds on a great variety of trees.

Fig. 21.

Actias Luna, L., is the beautiful large pale green moth with long tails to the hind wings, which always evokes the admiration and wonder of those who see it for the first time, and who can scarcely credit (if they have no knowledge of our many splendid insects) that it is a native of Canada. The caterpillar (Fig. 21) resembles a good deal that of the last species, and like it is quite at home on a variety of trees.

Hyperchiria Io., Fab., is a very interesting species, from the fact that its caterpillar (Fig. 22) bears numerous branching spines, which have upon the human skin an effect similar to that of the stinging nettle, and on a sensitive place like the face or back of the hand produce great irritation. The caterpillar is about two inches long, of a pea-green color, and with a lateral white line edged with lilac. It is an almost omnivorous feeder, attacking various fruit and forest trees, as well as the hop, maize, and many other plants. The male moth is of a yellowish colour, varied with black and other markings, and with a large eye-spot on the hind wings; the female is larger, expanding about three inches, and is of a darker colour.

Fig. 22.

Ecpantheria Scribonia, Stall., is another large and handsome insect, known as the Great Leopard Moth (Figure 23, *a* female and *b* male). The wings are white, with rings, lines and spots of dark brown; the thorax has several black spots with a bluish white

Fig. 23.

centre, and the steel blue abdomen is streaked with yellow. The caterpillar (Figure 24) is one of those which are known as "hedge-hogs" (from their habit of rolling themselves up into a bristling ball), and is often called the "great black bear," because it is covered with tufts of stiff shining hairs. The spaces between the segments (except thoracic ones) are banded with red.

Three species of Halesidota may be mentioned, viz., *H. Maculata*, Harr.; *H. Tessellaris*, Hb., and *H. Caryæ*, Harr. The caterpillars of these are hairy, and are distinguished by having long pencils of black or white hairs upon certain segments. They pupate in hairy cocoons, under stones, loose bark, or other shelters.

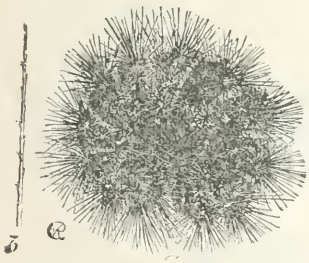

Fig. 24.

Fig. 25.

Orgyia leucostigma, Sm. Abb., the white-marked Tussock moth (Figure 25), has a caterpillar somewhat similarly clothed, but with different ornamentation and colouring. See Figure 26.

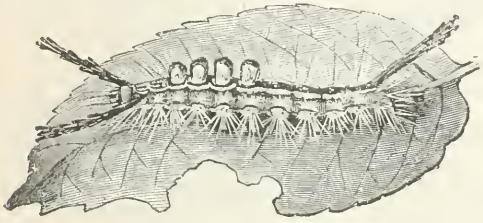

Fig. 26.

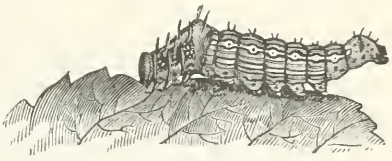

Fig. 27.

Oedemasia concinna, Sm. Ab., is the moth whose larva is called the Red-humped Apple-tree Caterpillar (Fig. 27). The larvæ have been found by me to feed also upon the willow.

The web-making caterpillars of Clisiocampa and of *Hyphantria textor*, Harr., which by their unsightly webs and omnivorous habits make themselves most unwelcome intruders in orchard or grove, also attack the willows.

Xyleutes Robiniæ, Harris., is said to attack the willow as well as the oak, locust and maple. The larvæ (which are pale greenish-white, and attain a length of two inches or more), instead of feeding upon the leaves, as do the preceding species, are true borers in the trunks or large limbs of trees, and, from the size of the burrows excavated by them, work great injury to the trees they infest.

The next large group of moths is that of the Noctuidæ, the species of which, while more numerous, are also smaller and less conspicuous in their ornamentation.

Apatela oblinita, Sm. Ab., the Smeared Dagger moth, is a modestly coloured moth (Fig. 28, *c*), but the caterpillar, which feeds also on apple, grape, etc., is very gaily coloured (Fig. 28, *a*), with bright yellow and crimson bands and spots upon a black ground. It pupates as shown in Fig. 28, *b*, in a thin cocoon attached to the stems of grass, etc., or loosely enclosed in a few leaves.

Apatela Americana, Harris, the American Maple moth, whose larva feeds on maple, elm, willow, poplar, etc., is a paler and somewhat larger moth than the preceding. The caterpillar, when fully grown, is nearly two inches long. It is of a greenish black coour covered with yellowish hairs, and having two pencils of long erect black hairs on the fourth segment, and another on the eleventh.

The genus Catocala contains a large number of fine moths, expanding three or more inches, and having the hinder wings usually banded with red or yellow and black. The larvæ are curious flattened caterpillars about two inches long, tapering to each end, and

Fig. 28.

having a fringe of fine hairs along the sides. When not feeding they rest upon the twigs in such a manner as enables them to very frequently escape detection. Two species, *C. Parta*, Guen., and *C. Concumbens*, Walk., are recorded from willows. Fig. 29 shows *Catocala Ultronia*, Hubn., a species which is sometimes found upon plum, as mentioned by Prof. Saunders in his "Insects Injurious to Fruits."

Fig. 29.

The last division of the Macro-Lepidoptera (or larger forms) is the Geometridæ, the larvæ of which are the "loopers" or "measuring worms," so well known, and several of which are occasionally found upon willows.

Among the Micro-Lepidoptera—those minute species (such as the Clothes Moth) which are so numerous and so difficult to distinguish, except by entomologists who have specially studied them—there are many species feeding in or upon the galls produced by other insects, or in mines made in the leaves. When leaves are examined they will often be found to have white blotches upon them, or to be traversed by serpentine white streaks. Closer examination will show that these are internal injuries, produced by the eating away of the inner tissues of the leaf. The minute flattened larvæ will be often found in their burrows, and can be watched in their work of destruction. The habits of these small moths are of interest. but cannot be dwelt upon now.

COLEOPTERA.

Of beetles feeding upon the willow we find the number of species to be but little less than those of the Lepidoptera; or more than half a hundred kinds which subsist at times upon the foliage or wood of these plants. Of these beetles more than two-thirds belong to the Chrysomelidæ and Curculionidæ, and these families include all the more destructive species.

Of Buprestidæ, beetles of the same family as *Dicerca divaricata* (Fig. 30), we find mention made of *Buprestis fasciata*, Fab., a beautiful insect of a bright green, with yellow markings upon the elytra. It is not a common beetle in this locality. I find very commonly during the summer upon foliage, three species of Agrilus, slender insects not exceeding

FIG. 30.

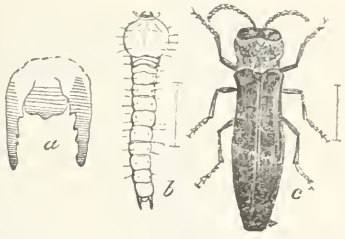

FIG. 31.

half an inch in length (see Fig. 31, *Agrilus ruficollis*, the raspberry borer), the larvæ of which bore under the bark of stems and branches. I have also found both upon the willow and poplar *Pœcilonota cyanipes*, Say, which is one of our rarest Buprestids.

Among the Scarabæidæ (the family to which the May-bugs belong) there are but few species to mention. The most common of these are *Hoplia trifasciata*, Say, and *Serica sericea*, Ill., both about one-third of an inch long, the former nearly black, or brownish with bands of golden pubescence, the latter a rich purplish or plum colour.

Cotalpa lanigera, Linn, is a much larger beetle (Fig. 32) being nearly an inch long. It is of a broad oval form, and of a rich yellow or golden hue above, and coppery

FIG. 32.

FIG. 33.

beneath. The lower surface bears a thick coat of fine whitish hair, from which characteristic it has derived its specific name, *lanigera*, or wool-bearer. It is found throughout a large part of Canada (although not occurring at Ottawa), and appears in May and June, the beetles hiding during the day and feeding at night upon various kinds of trees. The eggs are laid in the ground and the larvæ (Fig. 33), like those of many Scarabæidæ feed upon the roots of plants.

Lucanus dama, Thunb., which belongs to the closely allied family *Lucanidæ*, or Stag beetles is a large, smooth, brown beetle found in various parts of Ontario, the males of which have very long curved mandibles. The larvæ (Fig. 34) resemble in general appearance the "white grubs" of the May-beetles, and live in the trunks and roots of trees that have been injured or have commenced to decay.

Of the long-horned wood-boring beetles, the Cerambycidæ, the only species which seems to infest the willow here is *Saperda mutica*, Say. It is a handsome beetle, about five-eighths of an inch in length, of a blackish colour, but more or less clothed, especially

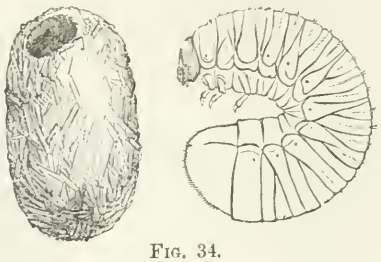

Fig. 34.

beneath, with an ochreous or tawny pubescence, There is a bright stripe of this pubescence on the head; the thorax has three bands, one on the back and one on each side, and the elytra are prettily mottled. The habits of this beetle are not, so far as I know, recorded, but I think it undoubtedly a borer in our native willows, upon which I have taken it (on one occasion in the act of copulating) in June and July.

This beetle belongs to an interesting genus, of which there are thirteen American species, all of which occur in Ontario, and the habits of which are well known to be very injurious to various trees. *S. calcarata*, to which *mutica* is very near, is the poplar borer; *candida* (Fig. 35) is the apple tree borer; *Fayi* attacks the small limbs of thorns; *cretata* has been destructive to apple trees; *vestita* is the common enemy of the basswood,

Fig. 35.

and also attacks the European linden, which is planted as a shade tree in many towns in Ontario; *discoidea* bores severely in hickories; *tridentata* and *lateralis* attack the elm; *puncticollis* infests grape vines and probably the Virginia creeper; *moesta* produces unsightly gall-like swellings on the limbs of poplars, and *concolor*, the last of the species, is another inhabitant of the willows.

The habits of *Saperda concolor* are described by Dr. Hamilton in a paper which will be found in Ann. Report No. XVIII. The larvæ bore in the canes of *Salix longifolia*, often causing their death the following year.

The Chrysomelidæ is a family of beetles which contains a great many species, mostly of small size, but often doing great damage to vegetation by their immense numbers; feeding for the most part, both in the larval and perfect stages, upon foliage. In appearance the larvæ and beetles of the larger species much resemble the Colorado potato-beetle, the different stages of which are well shown in Fig. 36: *b*, *b*, *b*, larvæ at different stages: *c*, the pupa; *d*, *d*, the beetle.

Chrysomela Bigsbyana, Kirby, and *C. spiræ*, Say, are two species found upon native willows. They are not quite so large as the potato-beetle and are more prettily marked, having the head and thorax bronzed or greenish, and the wing-covers pale with sutural lines and scattered dots of brown. The larvæ are pale, stout grubs, feeding upon the leaves of various plants.

Anomœa laticlavia, Forst, is sometimes abundant in June and July. It is about one-quarter of an inch long and half as wide; the abdomen, legs and antennæ blackish; the head, thorax and elytra, yellow, with a broad, purplish black stripe at the junction of the latter. The forelegs of the male are very much longer than those of the female, a very uncommon feature of our Chrysomelidæ.

Of the genera Pachybrachys, Diachus, Paria, etc., there are several species always abundant upon the foliage of willows, and all small cylindrical beetles, one-eighth of an inch or less in length, and often prettily colored.

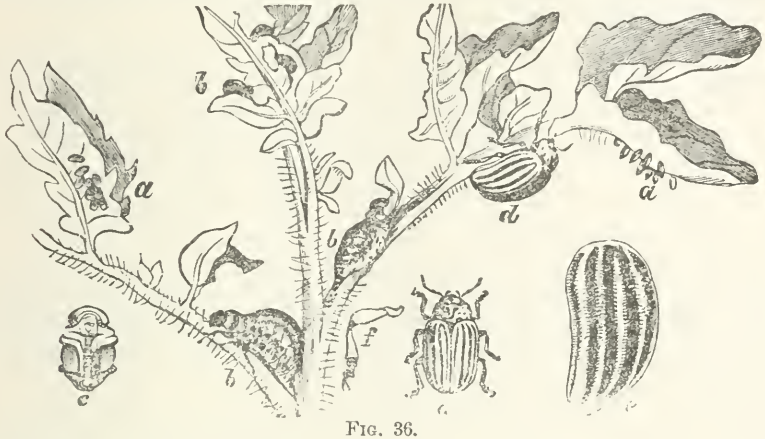

Fig. 36.

Another group of abundant and injurious beetles is composed of small species having the posterior legs greatly developed, and, consequently, jumping with the greatest agility. Their saltatorial powers have earned for them the term flea-beetles. The larger species, *Disonycha alternata*, Ill., and *D. punctigera*, Say, are yellowish above, with black stripes on the wing-covers, and are one-fourth or one-fifth of an inch long. The smaller ones

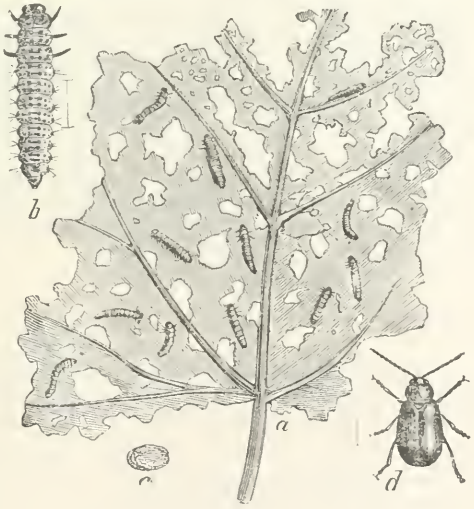

Fig. 37.

belonging to *Crepidodera*, etc., are usually uniformly coloured bronze, green or bluish, and may be readily recognized as relatives of the common flea-beetles which injure grapes, turnips, cucumbers, etc. Fig. 37 shows the grape-vine flea-beetle, *Graptodera chalybea*, and its larvæ riddling a leaf.

Galeruca decora, Say, is a beetle slightly larger than the grape-vine flea-beetle, and of the same shape, but has not the hind legs formed for leaping. Prof. Riley (Rept. U. S. Entomologist, 1884) states as follows of this species in connection with insect attacks upon willows near Washington: "The most numerous and most dangerous of these enemies is, beyond question, the Willow Galeruca (*Galeruca decora*, Say), of which young larvæ and imagos were met with everywhere on the leaves. . . . Full grown larvæ were not found early in June, and only a few egg clusters. Next in number comes *Colaspis tristis*, which in the imago state preferably feeds upon the very young, not yet fully developed leaves. Its larva, which no doubt has subterranean habits, was not met with, and it probably feeds on the roots of some other plants."

Lina lapponica, Linn., is a dark yellowish beetle, with black dots upon the elytra, much resembling in size and shape *Diabrotica 12-punctata*, Oliv. (see Fig. 38), but having the thorax wider and the spots upon the elytra more numerous. The larvæ feed upon willow and alder, and are of a dingy yellowish white colour, with black head and legs, and have upon the back and sides rows of small dusky tubercules which exude drops of a disagreeable secretion when the larvæ are disturbed. This species varies greatly in colour and the specimens I have bred were generally paler than those captured in the imago condition.

Fig. 38.

The remaining beetles all belong to the Rhynchophora or "beak-bearing" division of the Coleoptera, and nearly all to the extensive family Curculionidæ. The larvæ of these weevils are short, fleshy, whitish grubs, feeding upon various portions of plants, and generally concealed in cells or short burrows, so that they are seldom discovered until their operations have been some time in progress.

The largest of about twenty species which I have found upon willows is *Lepyrus geminatus*, Say; sometimes it appears quite abundantly, but never upon other plants. The habits of the larvæ are not known to me, but in all probability they infest the roots of the trees upon which the beetles are found. The beetle is a little over one-half an inch long, with a stout beak, equal in length to the thorax. The general colour is greyish; the thorax has an orange line on each side, and there is a dot of the same colour on each elytron near the middle.

Of Apion and Anthonomus there are several small species, either black or modestly coloured. Some of these breed in the galls made by the saw-flies and midges before described, and the habits of others are not yet fully known. There are also species belonging to genera allied to Anthonomus, including a number of species of the genus Orchestes. These little weevils correspond to the flea-beetles of the Chrysomelidæ, as they have the posterior legs enlarged, and possess great jumping powers. The beetles feed upon the leaves, of which they riddle the epidermis with numerous small holes. The habits of the larvæ are not known to me. The most abundant species is *O. pallicornis*, an entirely black insect, and another which is sometimes abundant is *O. rufipes*, which is smaller, and has, as its name denotes, red or yellowish legs.

Hemiptera.

Of the "bugs," properly so-called, ten or fifteen species, including some Aphides or plant-lice, are recorded in my notes, but as the extent of their ravages, and their life-histories are imperfectly known to me, I shall not give any account of them in this paper.

In conclusion it may be stated that my object in this paper has not been to give a complete catalogue of all the species of insects found upon the various willows, or to describe them minutely. It has been rather to give a general idea of the great number of these depredators, and the different classes to which they belong. To have given the name, description and complete history of every species would have made this paper much too long, and too technical for the general readers of this Report, and would also

have required an amount of time which was not in my power to bestow upon its preparation. In Bulletin No. 7 of the U. S. Entomological Division, prepared by Dr. Packard, in 1881, upon the Insects Injurious to forest and shade trees, there are enumerated one hundred species infesting the willows. Those recorded in my own notes, and the records made by other entomologists which I have been able to examine while writing this paper increase the number to at least two hundred. Even this large list would probably be almost doubled, if careful observations were made in all parts of the country, for in Europe four hundred species are known to feed upon the various willows.

INSECTS INJURIOUS TO THE OAK.

BY F. B. CAULFIELD, MONTREAL, P. Q.

If we examine a tree during the summer months it will generally be found abundantly tenanted by insects, some resting upon the trunk and larger limbs, while numbers may be observed upon the leaves, either sleeping or busily engaged devouring them, or else converting them into dwellings to afford them shelter from the storms and rains, or to conceal them from the numerous enemies who are constantly seeking for them. Every portion of the tree has its insect guests, each quietly and effectually performing its alloted task. It seems to be a law of nature that the old and weak must give place to the young and vigorous, hence a tree that has been unable to withstand the storm, or has been injured in any way, is speedily attacked by insects, conspicuous amongst them being the long-horned beetles, *Cerambycidae*; these bore into and tunnel it in all directions, permitting the air and moisture to enter, thus hastening its decay, and soon the massive trunk moulders and crumbles into dust, allowing a fresh growth to spring up and fill its place. In this way, so long as the forest is left in its natural condition the insects perform a good work. But when man steps in and the forest gives place to the orchard and the trees are reserved or planted for shade or ornament, the case is different, and it behoves us to study the habits of the insect inhabitants so that we may not confound the good with the evil, that we may know the times of their appearance and the particular manner in which the different species work, in order that we may be prepared to take effective measures to exterminate such as are injurious, and protect and foster those which are beneficial.

I have, in this article, endeavored to give a brief account of some insects known to injure oak trees, (Quercus) drawing freely upon those entomologists who have contributed so largely to our knowledge of the subject.

Injuring the Trunk.

1. The Locust Carpenter Moth. *Xyleutes robiniæ* (Harris.) Order Lepidoptera, Family, Bombycidae.

This is probably the most injurious insect attacking the red oak, and is equally destructive to the locust and several species of poplar. The female measures about three inches across the expanded wings, the front wings are grey marked with a network of dusky lines and spots, the hind wings are dusky, and darker at the base. The male is much smaller, and his front wings are darker than those of the female, the hind wings are black, with a large ochre-yellow spot. Dr. Harris states that the moths come forth about the middle of July. Dr. Fitch gives June and the forepart of July as the time of their appearance, the latter agrees with my own experience. During the day the moths remain quiet upon the trees, indeed I doubt that the female ever flies to any great distance, as her body is so large and unwieldy, owing to the number of eggs with which it

is distended, that protracted flight would appear almost impossible. and by the time the eggs are deposited she is exhausted and incapable of much exertion. The male, however, flies strongly and with great swiftness. Some years since a balsam poplar growing in front of my windows was badly injured by this insect, which along with *Saperda mœsta*, killed it in a few years. Upon one occasion, early in the afternoon, a male flew from the tree, although the sun was shining brightly at the time; it appeared, however, to be confused, as it settled on the road about twenty feet from the tree.

Immediately after sunset the males made their apearance, flying swiftly up and down the street; after dashing past the tree a few times they would circle around it, and finally make their way up amongst the limbs at their junction with the trunk, where no doubt the females were resting. On several occasions females were attracted by light, blundering in with a heavy labouring flight; the males appeared to be indifferent to it as none entered the house.

Dr. Fitch states that this is a most prolific insect, a specimen that he obtained having extruded upwards of three hundred eggs within a few hours of its capture. The eggs are of a broad oval form and about the size of a grain of wheat, being the tenth of an inch in length and three-fourths as thick, of a dirty white color with one of the ends black. When highly magnified their surface is seen to be reticulated or occupied by numerous slightly impressed dots, arranged in rows like the meshes in a net. From observing her motions in confinement I think the female does not insert her eggs in the bark but merely drops them into cracks and crevices upon its outer surface. They are coated with a glutinous matter which immediately dries and hardens on exposure to the air, whereby they adhere to the spot where they touch. (Fitch.) As soon as hatched the young caterpillar burrows into the tree, at first feeding upon the soft inner bark, but as it grows it sinks deeper, finally penetrating to the solid heart wood. When about to assume the chrysalis form it changes the direction of its burrow, working outwards until it reaches the bark, lining the passage with silk, then going back a little distance it spins a cocoon and changes to a chrysalis. The caterpillar is of a reddish color above, the head is black, while before pupating it changes color to white, tinged with pale green. When fully grown it measures two inches and a half or more in length and is nearly as thick as the end of the little finger. (Harris.)

The chrysalis is an inch and three-quarters long and is of a chestnut color, the forepart darkest. On the upper side of each segment of the abdomen there is a row of tooth-like projections, by means of which when about to disclose the moth, the chrysalis pushes itself forward until partly out of the tree. The moth now ruptures the chrysalis and creeps out, leaving the empty shell sticking in the mouth of the burrow.

As it is very difficult to see the moths when resting on the trees, any attempt to reduce their number by handpicking would be useless, but coating the trunks with soft soap in the early part of June would probably prevent the moth from laying her eggs on them, and any tree known to be badly infested should be cut down and burnt. Another species, the Xyleutes querciperda of Fitch, also attacks the oak but appears to be much less common than the robiniæ.

2. The Thunderbolt Beetle, *Arhopalus fulminans* (Fabr.) Order Coleoptera; Family Cerambycidæ.

This pretty beetle is blackish brown, with slight dark-blue reflections; the legs and antennæ are of the same colour, the latter being scarcely longer than the body. The top of the head and the sides of the prothorax and under side of the body are covered with pale gray pile, while certain silver markings on the wing-cover are composed of similar close-set fine hairs. The hairs on the sides of the prothorax enclose a conspicuous black spot, while the top is black and more closely punctate than the wing-covers. The latter are each crossed, by four acutely zigzag lines composed of microscopic hairs, forming W—like bands on the elytra; the basal lines being less distinctly marked than the others. The ends of the wing-covers are also tipped with gray, especially on the inner side of the end. The legs are pitchy brown with light hairs, and with a reddish tinge on the terminal joints (tarsi). It is a little over half an inch long. (Packard).

Dr. Fitch states that the larva "excavates a burrow in the soft-sap-wood about 3 inches long and 0.20 in diameter, this burrow having the shape of a much bent bow or a letter U."

It changes to a pupa in the same cell, the beetle apearing in July. (Packard.)

In the latter part of June 1871 I found numerous specimens of this beetle on a red oak that had been blown down on Montreal mountain. They were busily engaged travelling backward and forward along the trunk in search of partners. I observed several pairs mated. Copulation was of short duration and was frequently repeated, the female occasionally dropping an egg in a crevice of the bark, no incision being made for its reception. They appeared to keep altogether to the upper surface of the main trunk, none being seen on the sides, under surface or even the larger branches.

This species in some of its habits resembles the locust borer *Cyllene robiniæ*. (Harr.)

That species however, drops its eggs in clusters of seven or eight together, according to Dr. Harris, while *A. fulminans*, as observed my me, certainly only deposited a single egg at a time. Dr Harris believed that *C. robiniæ* completed its transformations in one year, and this I believe is the case with *A. fulminans* also. The tree that I observed them on, had apparently not been attacked up to the time it had been blown down in 1871, as it appeared to be perfectly sound and healthy and was in full leaf. I examined it several times in June and July 1872, but did not find a single beetle either on or about it, but there were plenty of holes showing where they had escaped.

In 1873 I found several specimens, also on a red oak; this tree was standing, but the top branches were dead and a few years finished it. Dr. Packard states that this species has been found attacking the chestnut (*Castanea vesca*) by Mr. R. B. Grover.

3. The Noble Clytus, *Calloides nobilis*, (Harris). Order Coleoptera; Family Cerambycidæ:—

This fine beetle measures almost an inch in length; it is of a dark blackish brown color, the wing-covers marked with two spots and three broken lines of yellow, I took five specimens at the same time and place as *A. fulminans*, two on the tree and the remainder close beside it, and although I did not find it ovipositing I am satisfied that it attacks the oak. Dr. Packard states that it has boen found beneath the bark of the chestnut at Providence by Mr. George Hunt, and as *A. fulminans* bores in both chestnut and oak I think there is little doubt but that *C. nobilis* does the same. Moreover the chestnuts are not found at Montreal so far as I am aware, so that the oak is probably its only food plant in Eastern Canada.

4. The Common Oak Borer, *Hylotrechus colonus*, (Fabr). Order Coleoptera; Family Cerambycidæ:—

Length half an inch, color dark reddish brown, two narrow undulated pale grey bands at base of wing-covers. End of wing covers pale grey, enclosing two round dark brown spots. Under surface dark brown with two round yellow spots. Abdominal segments margined with yellow. Legs and antennæ reddish brown. Dr. Packard states that he has found "the larva of this pretty beetle in abundance mining under the bark of a fallen (probably white) oak near Providence, May 26th several pupæ also occurred, one transforming to the beetle May 27th. The mine extends up and down the trunk and is of the usual form of Longicorn mines, being a broad, shallow, irregular, sinuous burrow, and extending part of the way around the trunk, the diameter near the end of the burrow being 5 m.m."

I found several specimens of this beetle along with the preceding species, but all were quietly resting beneath the trunk, (the tree was lying on a bank of earth torn up with the roots and on the larger limbs, leaving the trunk clear of the ground).

Dr. Packard states that Mr. George Hunt has found this species under the bark of an old sugar maple, and it has been found running on dead hickory by Mr. W. H. Harrington.

5. The Oak Bark Borer, *Urographis fasciatus.* (De Geer.) Order Coleoptera; Family Cerambycidæ:—

The grub of this beetle feeds on the inner bark of the oak, transforming to a long-horned slightly flattened beetle, of a yellowish grey color, thickly covered with dark spots and dashes.

The female is provided with a straight awl-like ovipositor, nearly as long as her body with which she perforates the bark when depositing her eggs.

"The worms from these eggs mine their burrows mostly lengthwise of the grain or fibre of the bark, and the channels which they excavate are so numerous and so filled with worm dust of the same color with the bark that it is difficult to trace them. The eggs are deposited the latter part of June, and the worms grow to their full size by the end of the season, and will be found during the winter and spring, lying in the inner layers of the bark, in a small oval flattened cavity which is usually at the larger end of the track which they have travelled." (Fitch).

I have taken this species on the red oak, at Montreal, quite commonly.

6. The Apple Flat-headed Borer, *Chrysobothris femorata*, (Fabr.) Order Coleoptera; Family Buprestidæ:—

The larvæ belonging to this family present an appearance somewhat resembling a tadpole, (Fig. 39, *a.* and *c.*) the second segment behind the head being enormously en-

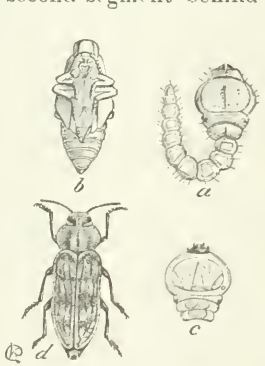

Fig. 39.

larged, while the remaining segments are much smaller. The species under consideration bores under the bark and in the sapwood of various trees, the apple and white oak in particular.

"The beetle (*d*) measures from four to five tenths of an inch in length"; it is of a greenish black color, polished and shining, with the surface rough and uneven. The head and sometimes the thorax and the depressed portions of the elytra are of a dull coppery color. The elytra or wing-covers present a much more rough and unequal surface than any other part of the insect. Three smooth and polished raised lines extend lengthwise on each wing-cover and the intervals between them are in places occupied by smaller raised lines, which form a kind of network, and two impressed transverse spots may also be discerned more or less distinctly, dividing each wing-cover into three nearly equal portions. The under surface of the body and the legs are brilliant coppery." (Fitch).

Bores in the white (and probably other species of) oak, also in apple and peach trees.

7. The Red Oak Flat-headed Borer, *Chrysobothris dentipes.* (Germar.) Order Coleoptera; Family Buprestidæ:—

Very closely resembles the preceding species but is smaller. I found it common on red oak in the early part of June, very active, and taking wing readily when alarmed.

8. The Northern Brenthian, *Eupsalis Minuta*, (Drury). Order Coleoptera ; Family Brenthidæ :—

This curious beetle is of a rich mahogany brown color ; the wing-covers are clouded with darkish brown deeply furrowed and marked with narrow yellow spots ; the thorax or neck is smooth and polished and in shape somewhat resembles an egg, the small end nearest the head. The snout or beak projects straight in front, an exception to the general form, most weevils having it curved or bent abruptly down. It measures from a

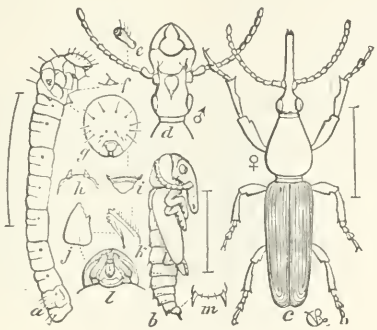

Fig. 40.

quarter to over half an inch in length, the males generally being the largest. (Fig 40 represents the insect in all its stages.)

The female bores a hole in the bark and dropping an egg in it, pushes it well in with her beak. It requires about a day to make a puncture and deposit the egg. During the time the puncture is being made the male stands guard, oocasionally assisting the female in extracting her beak ; this he does by stationing himself at a right angle with her body and by pressing his heavy prosternum against the tip of her abdomen ; her stout fore-legs serving as a fulcrum and her long body as a lever. When the beak is extracted the female uses her antennæ for freeing the pinchers or jaws of bits of wood or dust, the antennæ being furnished with stiff hairs and forming an excellent brush. Should a strange male approach, a heavy contest at once ensues, and continues until one or the other is thrown from the tree. The successful party then takes his station as guard. (W. R. Howard in Riley's 6th Report.) Attacks various species of oak, the larvæ boring into the solid wood.

9. The Gray-sided Oak Weevil, *Pandeletejus hilaris*. Order Coleoptera ; Family Curculionidæ :—

"A little pale-brown beetle, variegated with grey upon the sides. Its snout is short, broad and slightly furrowed in the middle. There are three blackish stripes on the thorax, between which are two of a light grey color ; the wing-covers have a broad stripe of light grey on the outer side, edged within by a slender blackish line, and sending two short oblique branches almost across each wing-cover, and the fore-legs are larger than the others. The length of this beetle varies from one-eighth to one-fifth of an inch. The larva lives in the trunks of the white oak, on which the beetles may be found about the last of May or beginning of June." (Harris).

10. The Oak Bark Weevil, *Magdalis olyra*. (Herbst). Order Coleoptera ; Family Curculionidæ :—

Dr. Packard states that he found this species on the red oak "occurring in all stages under the bark in May, transforming into a black weevil with the surface of the body punctured, the thorax with a lateral tubercle on the front edge, while the tarsi are brown, with whitish hairs, ¼ inch long.

11. The White Oak Phymatodes, *Phymatodes variabilis*, (Fabr.) Order, Coleoptera; Family, Cerambycidæ.

"Boring the trunk and branches of the oak, a narrow longicorn larva, changing to a reddish thick-bodied longicorn beetle."—(Packard.)

Length about half an inch, body and legs reddish, head black, wing-covers Prussian blue.

Dr. Packard states that numerous specimens of this beetle were taken by Mr. Alfred Poor from a white oak stick, June 20th.

12. The White Headed Phymatodes, *Phymatodes varius*, (Fabr.) Order, Coleoptera; Family, Cerambycidæ.

"A long-horned beetle, 0.25 in length or slightly less, and about a third as broad, somewhat flattened, clothed with fine erect grey hairs, its wing-covers with two distinct slender white bands which do not reach the suture, the anterior one more slender than the hind one and curved; the antennæ and slender portions of the legs usually chestnut colored. Several specimens of this beetle were met with the last of May, in the trunk of a black oak, in which it is probable their younger state had been passed."—(Fitch.)

Dr. Packard states that he found near Providence, several of these beetles of both sexes, running in and out of a pile of oak cordwood in the forest, May 30th, which was cut the previous winter.

Injuring the Roots.

13. The Zebra Lepturian, *Leptura zebra*, (Olivier.) Order, Coleoptera; Family, Cerambycidæ.

Length about half an inch, general color bright golden yellow, upper surface of thorax marked with a transverse crescent shaped spot of black. Wing-covers black, crossed by four yellow bands, under surface yellow, legs and antennæ red.

I took a number of these beautiful longicorns on or about the same red oak on which *A fulminans* was so abundant. They were very shy and active, taking flight on the least alarm, so that it was difficult to watch an individual for any length of time. The bank of turf and earth torn up by the matted roots, appeared to be especially attractive to them, as most of those taken were found there. On two occasions I observed females entering cavities where the earth had been worn away from the roots, but they followed their windings too far down to allow me to see what they were about. Their actions led me to believe that they oviposit on the larger roots; when disturbed they ran out and flew away. According to Dr. Packard, Dr. Horn states that the larva and pupa inhabit the black oak, injuring the branches.

14. The Oak Pruner, *Elaphidion villosum*, (Fabr.) Order, Coleoptera; Family, Cerambycidæ.

This insect has been given its popular name on account of the manner in which the grub or larva cuts away the wood of the branch in which it is boring, thus weakening it so that it is liable to be broken off by the autumn winds. The earlier writers on this insect were of the opinion that "The limb thus wounded would become too dry for the maintenance of the soft-bodied larva, hence, it must be felled to the ground, where in the wet and under the snows of winter, it would remain sufficiently moist for the existence of the insect, which completes its transformations within." The investigations of Messrs. Clarkson and Hamilton have shown that moisture is not necessary for the development of the beetle. These gentlemen having obtained numerous specimens from branches kept within doors.

No doubt the pruning of the branch is instinctively done in order to stop the flow of sap, and thus obtain a supply of dead wood; the same end is obtained by the hickory borer, *Oncideres cingulatus*, but in a different manner; in this case the girdling or pruning being done by the adult insect, and from the outside of the branch.

The mature insect (fig. 41) is a slender elongated, dark brown, long horned beetle, the wing-covers more or less marked with grey spots. Dr. Hamilton states that they vary in length from 8 to 18 m. m.; in pubescence some being nearly naked and uncolored, others having it longer and condensed into spots or almost vittate, some being quite slender and elongate, while others are short and broad; the surface of the elytra is mostly uniform, but in some, especially such as are narrow and elongated, one or two costæ are more or less evident. Dr. Fitch states that "The larva (fig. 42) grows to a length of

Fig. 41.

Fig. 42.

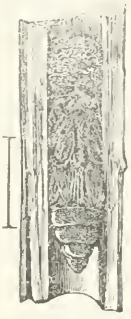

Fig. 43.

0.60, and is then 0.15 across its neck where it is broadest. It tapers slightly from its neck backwards, the hind part of its body being nearly cylindrical. It is a soft or fleshy grub, somewhat shining and of a white color, often slightly tinged with yellow, its head which is small and retracted into the neck, being black in front." The earlier writers on this insect state that the parent beetle deposits an egg close to the axil of a leaf stock, or of a small twig near the extremity of a branch, and that the grub tunnels its way downwards into the branch, when half grown gnawing away the wood so that it breaks off with the wind.

Dr. Hamilton who has bred numbers of this species states that "The normal period of metamorphosis is three years, but in individuals it may be retarded to four or more years. How the larva got under the bark could not be ascertained. When first examined in April, they were from 4 to 5 m. m. long. They ate the wood under the bark, following its grain, and packed their burrows solidly with their dust. Their growth and progress were both slow, for by the next April they had scarcely more than doubled in length, and had not travelled more than from four to six inches during the year; but after July they developed an enormous appetite, and consumed the wood for at least one inch in length, and often entirely around the limb, ejecting their castings through holes made in the bark. When full fed they bore obliquely an oval hole into the wood, penetrating it from four to ten inches. The larva then packs the opening with fine castings, and enlarges a couple of inches of the interior of the burrow by gnawing off its sides a quantity of coarse fibre, in which it lies after turning its head to the entrance (as shown in fig. 43). The time spent in the pupal state is indefinite, and does not seem to concern greatly the time of the appearance of the beetle. Sticks split open at different periods from December till March, contained larva and pupa about equally, but no developed beetles. A larva that I observed to go into the wood in April appeared as a beetle among first of such as had presumably pupated in the fall. The most of the beetles appeared during the first two weeks of June, though individuals occurred occasionally till September."

Mr. T. C. Clarkson who has bred this beetle from oak, speaks of it as follows: "These oak pruners were very abundant in Columbia County, this state (New York), in the season of 1878. The September winds brought showers of twigs and branches to the ground. I examined many of them, and found such to contain the larva nearly full grown, in tunnels measuring from ten to fifteen inches long. I gathered

five goodly sized branches just after they had fallen, for the purpose of illustrating the burrows in my cabinet of nest architecture. The branches remained on a table in a room having very nearly the conditions thermometrically of the temperature without, until the early part of November, when I opened them for the purpose already stated. I was astonished to find that every burrow contained the beetle. The transformation therefore from the larva to the imago was completed in less thau eight weeks." Mr. Clarkson repeated the experiment the following season, collecting in October seven branches that had been pruned by the same insect. The imagoes appeared on the following days: November 14th, 22nd, 26th, 29th, December 9th and 26th, all females. "As the imagoes appeared they were examined and replaced in their tunnels, where they now remain in a passive state, and are not likely to exhibit their natural activity until next May or June."

From these accounts it will be seen that the insects inhabiting the oak differ somewhat in habit from those found in hickory; the former completing their transformations in the fall, while the latter passed the winter either as larva or pupa. Continued observations will be necessary to determine if such is always the case, and to clear up other doubtful points in the history of this curious insect. Although called the oak pruner, it is not confined to that tree, as it also attacks chestnut, apple, plum, etc,

15. The Seventeen Year Cicada, *Cicada Septemdecim*, Linn. Order Hemiptera; Family Cicadaria.

This insect when mature (Fig. 44, *c*) "is of a black color with transparent wings and wing-covers, the thick anterior edge and larger veins of which are orange red, and near the tips of the latter there is a dusky zigzag line in the form of the letter W; the eyes when living are also red; the rings of the body are edged with dull orange, and the

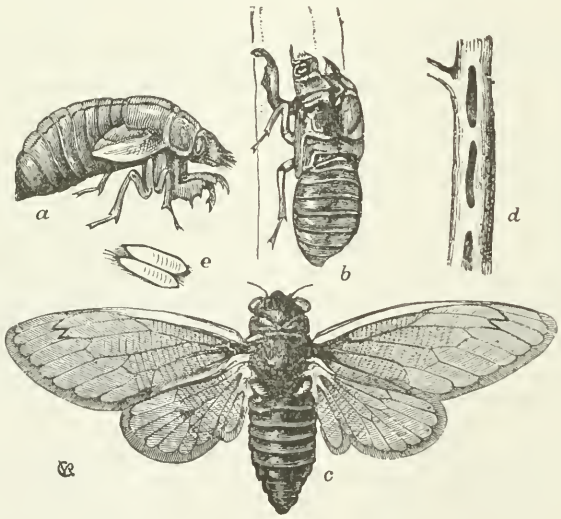

Fig. 44.

egs are of the same colour. The wings expand $2\frac{1}{2}$ to $3\frac{1}{4}$ inches."—(Harris.) The female is provided with an awl shaped ovipositor or piercer, consisting of "two sharp saws which work alternately, and a central supporting dorsal piece which holds them in their place and strengthens them."

After pairing the females proceed to prepare a nest (Fig. 44, *d*) for the reception of their eggs. "They select for this purpose branches of a moderate size, which they clasp on both sides with their legs, and then bending down the piercer at an angle of about forty-five degrees they repeatedly thrust it obliquely into the bark and wood in the direction of the fibres, at the same time putting in motion the lateral saws, and in this

way detach little splinters of the wood at one end so as to form a kind of fibrous lid or cover to the perforation. The hole is bored obliquely to the pith and is gradually enlarged by a repetition of the same operation till a longitudinal fissure is formed of sufficient extent to receive from ten to twenty eggs. The side pieces of the piercer serve as a groove to convey the eggs into the nest, where they are deposited in pairs, side by side, but separated from each other by a portion of woody fibre, and they are implanted into the limb somewhat obliquely, so that one end points upwards. When two eggs have been thus placed, the insect withdraws the piercer for a moment and then inserts it again and drops two more eggs in a line with the first, and repeats the operation till she has filled the fissure from one end to the other, upon which she removes to a little distance and begins to make another nest to contain two more rows of eggs. She is about fifteen minutes in preparing a single nest and filling it with eggs, but it is not unusual for her to make fifteen or twenty fissures in the same limb, and one observer counted fifty nests, extending along in a line, each containing fifteen or twenty eggs in two rows, and all of them apparently the work of one insect.

After one limb is thus stocked, the Cicada goes to another, and passes from limb to limb, and from tree to tree, till her store, which consists of from four to five hundred eggs, is exhausted The eggs (Fig. 44, *e*) are one-twelfth of an inch long and one-sixteenth of an inch through the middle, but taper at each end to an obtuse point, and are of a pearl-white color. The young insect when it bursts the shell is one-sixteenth of an inch long, and is of a yellowish-white color, except the eyes and claws which are reddish, and is covered with little hairs. In form it is somewhat grub-like, being longer in proportion than the parent insect, and is furnished with six legs, the first pair of which are very large, shaped almost like lobster claws, and armed with strong spines beneath. On the shoulders are little prominences in place of wings, and under the breast is a long beak for suction." (Harris.)

As soon as hatched the young Cicada lets itself fall from the limb and immediately buries itself in the earth, burrowing by means of its mole-like fore feet.

"The larva (Fig. 44, *a*) obtains its food from the small vegetable radicles that everywhere pervade the fertile earth. It takes its food from the surface of these roots, consisting of the moist exudation (like animal perspiration), for which purpose its rostrum or snout is provided with three exeeedingly delicate capillaries or hairs which project from the tube of the snout, and sweep over the surface gathering up the minute drops of moisture. This is its only food. The mode of taking it can be seen by a good glass."—(Dr. Smith in *Prairie Farmer*.) The females appear to prefer oak and hickory, but will oviposit in many other trees and shrubs, sometimes causing serious injury, especially to young trees, as the following extract from the *Valley Farmer* will show: "We planted an orchard of the best varieties of apple trees last spring. We had taken particular pains, not only in selecting the best varieties, but in planting the trees, and hoped in a few years to partake of the fruit. But our hopes were destined to be blasted. The locusts (Cicadas) during the summer destroyed nearly all of them; not one in six is living. To look at them one would think that some one had been drawing the teeth of a saw over the bark of every tree."

Various applications have been tried on the trees, but without appearing to prevent the females depositing their eggs; but numbers of the insects may be crushed in the early morning and in the evening, as at these times they are not nearly so active as during the warmer parts of the day, and when issuing from the ground hogs and poultry devour them eagerly. Although included in our lists of Canadian insects, the seventeen year Cicada appears to be very rare in Canada, and so far as known to me has not been observed in the Province of Quebec.

16. The White-lined Tree Hopper, *Thalia univittata*. (Harris). Order Hemiptera; Family Membracidae.

This insect is about four-tenths of an inch in length, the thorax is brown, has a short obtuse horn, extending obliquely upwards from its forepart, and there is a white line on the back, extending from the top of the horn to the hinder extremity.—(Harris.) Common on oak trees in July according to Harris.

Injuring the Leaves.

17. The Tent Caterpillars, *Clisiocampa distria*, Hubnr, and *C. Americana*, Harris. Order Lepidoptera; Family Bombycidæ.

As these insects have been already described and figured in this report, a detailed description is unnecessary (see Figs. 1-5). Unfortunately both species are only too common, *C. distria* chiefly affecting forest trees, *C. Americana* being most abundant in the orchard and garden. Neither species is very particular in its choice of food plant, feeding voraciously on the leaves of many kinds of trees and shrubs; indeed, both species may often be seen clustered together in groups upon the trunks and larger limbs. The caterpillars resemble each other very closely, but may easily be distinguished by *C. distria* having a row of oval white *spots* along the back, while *C. Americana* has a white *stripe* on the upper surface. The reddish brown moths appear in July, and soon deposit their eggs in rings on the smaller branches and twigs, each cluster containing from two to three hundred eggs! A surprising point in the life-history of these insects is that about a month after the eggs are laid the young caterpillar is fully formed inside the egg and remains in this condition all through the winter, only eating its way out from the egg in the following spring, when the leaves expand.—(Fletcher.)

During the winter months, when the trees are bare of leaves, the clusters of eggs should be collected and burnt. The trees should be searched again in spring, just as the buds are opening, when the small white webs in which the young caterpillars shelter themselves may be easily found and destroyed.

An invasion from neighbouring trees can be prevented by tying a strip of cotton-batting round the trunk, which the caterpillars have difficulty in climbing over.—(Fletcher.)

18. The Orange Striped Oak Caterpillar, *Anisota senatoria*, Hubn. Order Lepidoptera; Family Bombycidæ.

The caterpillar of this moth measures about two inches in length; it is black, with four yellow stripes along the back, and two on the sides; it is armed with sharp prickles or spines, and on the top of the second segment are two long slender spines that project forward like horns. The caterpillars are social, feeding together in swarms on the white and red oak, sometimes almost stripping the trees. When full grown they enter the ground, where they change to chrysalis, the moths emerging the following summer. It has been taken in the neighbourhood of Montreal by Mr. P. Knetzing, and has been observed at Hull, Ottawa, by Mr. W. H. Harrington, and is, I believe, common in some parts of Ontario.

19. The Leaf-rolling Weevil, *Attelabus bipustulatus*, Fabr. Order Coleoptera; Family Attelabidæ.

This beetle measures a little over one-eighth of an inch in length; it is of a blue-black colour, with a red spot on the shoulder of each wing cover. This beetle has the curious habit of rolling up a leaf, trimming and tucking in the lower ends with her beak. The egg is first deposited near the tip of the leaf, and a little to one side; the blade of the leaf is then cut through on both sides of the mid-rib, about an inch and a half below a row of punctures on each side of the mid-rib of the severed portion, which facilitates folding the leaf together, upper surface inside, after which the folded leaf is tightly rolled up from the apex to the transverse cut, bringing the egg in the centre; the concluding operation is the tucking in and trimming off the irregularities of the ends. A few days after completion the cases, first observed the latter part of April, drop to the ground; by May 15 several larvæ hatched and fed on the dry substance of their nests; and by the end of May they pupated within the nest. This state lasted from five to seven days, the first beetles issuing by June 2, while a second brood of larvæ may be found early in July.—(Martfelt.)

INJURING THE ACORNS.

20. THE ACORN WEEVIL, *Balaninus rectus*, Say. ORDER COLEOPTERA; FAMILY CURCULIONIDAE.

The larva of this beetle lives in the acorns of the red (and probably other kinds of) oak; it is a short, stout, footless grub, of a whitish color. In the fall, by which time it is full grown, it cuts a circular hole in the side of the acorn, through which it escapes; it then burrows in the earth, emerging the following season as a small, long-snouted, brownish beetle, obscurely mottled with spots of a lighter color. Common in Canada.

21. THE ACORN MOTH, *Holcocera glanduella*, Riley. ORDER LEPIDOPTERA; FAMILY TINEIDAE.

The acorns that have been deserted by the weevil are selected by this little moth as a fitting abode for her offspring, and the little hole so nicely cut by the grub of the beetle provides her with a convenient opening, by means of which she is able to deposit an egg within the acorn. From this egg hatches a tiny, slender, grayish-white caterpillar, with a light brown head, and blue-black marks on the upper surface. The moth is silvery gray, marked with reddish brown; the hind wings darker grayish brown.

The following insects also live on the oak :—

Papilio turnus, Linn.
Limenitis ursula, Fabr.
Limenitis dissippus Linn.
Thecla calanus, Hubn.
Thanaos brizo, Boisd & Leconte.
Thanaos ennius, Scudder.
} Given as feeding on oak by Packard.

Phryganidea Californica, Packard. (Destructive to oaks, H. Edwards.)
Halesidota maculata, Harris. (On oak, Saunders.)
Orgyia gulosa, Edwards. (Edwards in Papilio 1, p. 61.)
Parorgyia Clintonii, Grote and Robinson. Coquillet in Can. Ent. xii., 44.
Phobetron pithecium, Smith and Abbot. (Bred from oak, Lintner.)
Euclea monitor, Packard.
Euclea querceti, H. S.
Euclea quercicola, H. S.
Edema albifrons, Smith and Abbot. (Harris correspondence, p. 304.)
Nadata gibbosa, Smith and Abbott (Harris correspondence, p. 308.)
Anisota stigma, Hubn. (On oak, Riley.)
Anisota pellucida, Hubn. (On different species of oak, French.)
Telea polyphemus, Linn.
Hyperchiria io, Fat.
Hemileuca maia, Drury. (On oak, Riley, Lintner.)
Gastropacha Californica, Packard. (On oak, *Quercus agricolea*, H. Edwards.)
Heterocampa pulverea, Grote and Robinson. (On red and scarlet oaks, French.)
Clisiocampa Californica, Packard, (on oak, Stretch.)
Clisiocampa constricta, Stretch (On *Quercus sonomensis*, Benth. Stretch.)
Cosmia orina, Guen. (On oak, Saunders.)
Catocala ilia, Cramer, (On oak, Saunders.)
Catocala coccinata Grote, (Coquillet in Papilio 1. p. 56.)
Paraphia unipunctaria, Haworth, (On oak, Fitch.)
Aplodes mimosaria Guen. (On oak, Walsh.)
Stenotrachelys approximaria, Guen. (On oak, Abbot.)
Endropia bilinearia, Packard. (On oak, Packard.)
Endropia pectinaria, Guen. (On oak and poplar, Abbot.)
Metanoma querciveraria, Guen. (On oak, Packard.)
Nematocampa filamentaria, Guen. On oak, Thorn, &c.
Therina endropiaria, Packard.
Also about fifty species of Micro-Lepidoptera.

COLEOPTERA.

Romaleum atomarium, Drury. (In dry twigs of *Quercus virens* in Florida, Schwarz.)
Elaphidion mucronatum, Fabr. (Same as preceding species.)
Tragidion fulvipenne, Say. (Bores in oak, Riley.)
Acanthoderes 4-gibbus, Say. (In dead twigs of oak, Schwarz.)
Bostrichus bicornis, Web. (Under bark of white oak posts, McBride.)
Synchroa punctata, Newman. (In rotten oak stumps, Horn.)
Centronopus calcarata, Fabr. (In black oak stumps, Horn.)
Centronopus anthracinus, Knoch. (Same as preceding species.)
Coscinoptera dominicana, Fabr. (In oak, Riley.)
Mordella 8-punctata, Fabr. (In old oak stumps, Riley.)

HEMIPTERA.

Eriosoma querci, Fitch.
Lecanium quercifex, Fitch.
Lecanium quercitronis, Fitch.

The oak is also attacked by many species of hymenopterous gall-flies, which distort and disfigure the twigs, buds and leaves, forming swellings and protuberances of various shapes and sizes. The flies which produce these galls are very small, and are generally of a black color, with red or yellow legs.

CREATURES THAT AFFECT THE FARMER THROUGH HIS LIVE STOCK.

REV. THOMAS W. FYLES, SOUTH QUEBEC.

PART I.—INSECT PESTS.
PART II.—ENTOZOIC PESTS.

I.

"Round Mount Alburnus, green with shady oaks,
And in the groves of Silarus, there flies
An insect pest (named *Œstrus* by the Greeks,
By us *Asilus*): fierce with jarring hum
It drives, pursuing the affrighted herd
From glade to glade; the air, the woods, the banks
Of the dried river, echo their loud bellowing."
—VIRGIL, GEORGICS III.

HORSE-FLIES (TABANIDÆ).

Kirby and Spence, in Letter V. of their very interesting *Introduction to Entomology*, speaking of the Tabanidæ say:—"In North America vast clouds of different species—so abundant as to obscure every distant object, and so severe in their bite as to merit the appellation of burning flies—cover and torment the horses to such a degree as to excite compassion even in the hearts of the pack-horsemen. Some of them are nearly as big as humble-bees; and when they pierce the skin and veins of the unhappy beast make so large an orifice that, besides what they suck, the blood flows down its neck, sides and shoulders till, to use Bartram's expression, "they are all in a gore of blood." Packard in his valuable *Guide to the Study of Insects*, page 394, confirms this statement, saying of *Tabanus lineola*, "This fly is our most common species, thousands of them appearing during the hotter parts of the summer, when the sun is shining on our marshes and western prairies; horses and cattle are sometimes worried to death by their harrassing bites."

Upwards of eighty species of the genus *Tabanus* are found in North America, and the names of thirty-two of these are on the Toronto Natural History Society's list. The

allied genus *Chrysops* has also many species. The largest of our horse-flies is *Tabanus atratus*, the Black Horse-fly. (Fig. 45.) A specimen of this now before me is one inch in length of body and two inches in expanse of wings. It is one coloured, brownish-black.

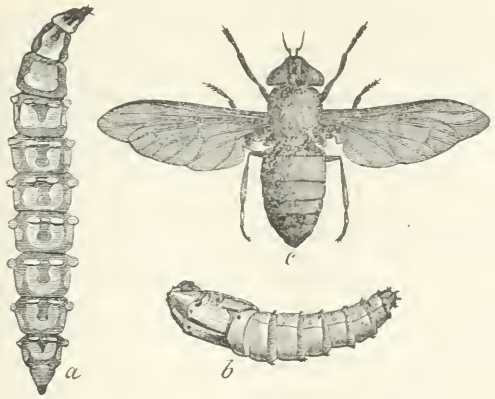

Fig. 45.

Tabanus lineola, the Lined Tabanus, is of a greyish-brown, and has a whitish line along the abdomen. It measures about an inch in expanse of wings. Its proboscis is a formidable arrangement of the maxillæ and other mouth organs. The female horse-flies are those that are to be dreaded; the males do not bite.

Wood in his *Insects at Home*, page 615, speaking of *Tabanus bovinis*, gives us a good hint as to the way of dealing with the horse-flies generally. After telling of his sufferings from the bites of these creatures— of returning to his lodgings with the whole space behind his ears filled with clotted blood from the wounds inflicted upon him, he says:— "At length I discovered a plan which enabled me to enjoy comparative immunity from these and other insect pests. Before starting for the forest I dipped a little sponge in paraffin and rubbed it over my hands, face and neck. I also put some of the liquid into my gloves, and took a little bottle with me so that I might renew it as soon as the odour began to decrease in strength. Thus armed I went into the forest, and hearing in the distance the well-known trumpet charge of the Breeze Fly, determined to await the insect without flinching. The creature drove fiercely at my face until it was within a foot or eighteen inches from me, when it came within the vapour of the paraffin and darted off like an arrow. Two or three times it tried the assault, and as often had to check itself, until at last it flew off in disgust and did not return."

Stomoxys Calcitrans.

This is a small fly belonging to the family Muscidæ. It is about the size of the house-fly, but is very different from it in many respects. Its face is yellow and its eyes are brown. Its thorax is yellow, striped above and below with black, and its abdomen yellow, dotted with brown. Its wings have the front edge and the tip brown, and a conspicuous brown patch in the middle. The creature has a sharp proboscis and bites fiercely. It particularly affects the horse's ears. Probably paraffin rubbed on the ears would save the horse many a pang.

Hippobosca Equina.

The Horse-tick is happily far less abundant than *S. calcitrans*, but its attacks are more to be dreaded. It delights to get under the tail, or between the hind legs of the horse; and it renders the animal furious by the irritation caused by its beak and claws.

No doubt the thick hairy coat, the mane and the tail of the horse were designed as protectives against the attacks of injurious insects; and those who have noticed how

horses stand in the pasture, nose and tail together for mutual protection, will understand the cruelty of "clipping" and "docking."

The Sheep-tick (*Melophagus ovinus*).

The Sheep-tick is closely related to *H. equina*. Though it is ranked with the Diptera or *Two-winged Flies*, the Sheep-tick has no wings. Unlike other Diptera, moreover, its abdomen has no segments—it is a membraneous sack. The insect is in many respects a very remarkable one. It produces an offspring almost as large as itself, and that not in the egg, but in the *pupa*. This pupa is soft and white at first, but its case soon turns brown and hardens. At the front of the pupa is a notch marking the lid. This lid in due time opens to let the perfect insect escape.

Thorough washing, close shearing, and the application of a decoction of tobacco, are the approved measures against this intruder.

The Bot Flies (Oestridæ).

The Bot-fly of the Horse (*Gastrophilus equi*).

The Bot-fly of the Ox (*Hypoderma bovis*).

The Bot-fly of the Sheep (*Oestrus ovis*).

Who does not know the Bot-fly of the horse? Who has not admired the perseverance with which the creature accompanies the horse for miles, hovering around its chest and fore-legs, and the skill with which it darts in at a favourable moment, protrudes its ovipositor and glues an egg to a hair of the animal?

The eggs deposited by the bot-fly are ready to hatch in four or five days. The horse licks itself, and its wet tongue comes in contact with the eggs. They burst, and the active maggots adhere to the tongue, and are afterwards taken with the saliva into the stomach of the animal. Here they fasten themselves by means of the hooks with which their heads are furnished. They are nourished by the juices of the stomach. When full grown they are voided and drop to the ground, in which they bury themselves. They then pass into the pupal state, and in about six or seven weeks the new bot-flies appear.

To prevent mischief from *G. equi*, let the horse wear a net; groom the animal thoroughly, and make frequent use of the sponge and hot water. Pratt gives the following

Remedy for Bots.

"Take oil of turpentine 8 oz.; alcohol, 1 quart. Mix and bottle for use. Dose, 4 to 5 oz. in the horse's feed, once a day for eight days, will effectually remove every vestige of bots."—*The Horse's Friend*, page 296.

The Ox Bot-fly bores a hole, with her horny and augur-like ovipositor, through the skin of the back of the ox, and drops an egg therein. The process takes but a few moments, but the ox does not like it. The hole thus made enlarges as the maggot grows, allowing the air to reach the respiratory organs of the parasite. A tumor forms, and from this the creature is at length ejected, to pass the after stages of its existence as in the case of G. equi. Young and healthy animals are selected by *H. bovis* as hosts for its young. The perfect insect is black and hairy, and has yellow, white and orange markings. It appears towards the end of summer.

The Sheep Bot-fly deposits its young (for it is ovo-viviparous) in the nostrils of the sheep. The maggots crawl into the head, and feed on the mucus produced in the maxillary and frontal sinuses. When they are full grown, the sheep blows them from the nose, and they fall to the earth, there to pass into the pupa condition. The fly is of a dirty ash colour, with a brownish thorax. Its hairy abdomen is mottled with yellow and white.

Pine tar rubbed on the noses of the sheep is a preventive to the operations of the insect.

II.

"One talks of mildew and of frost,
And one of storms of hail,
And one of pigs that he has lost
By maggots at the tail."—*Cowper.*

Entozoic pests are more dangerous and more difficult to treat than those we have hitherto been considering. Their operations are obscure, and have in many instances been fatal both to man and beast. It is hoped that the following brief accounts of some of the most note-worthy of these pests will be acceptable.

Tape Worms.

The common Tape-worm (*Tænia solium*) consists of a head (which is in reality the body), and a great number of joints (*zooids*), each of which contains sexual organs of both kinds, and is capable of independent life. The tail segments detach themselves as they arrive at maturity, one by one, and are voided by their "host"; whilst, from the body of the worm, fresh zooids are indefinitely produced. The eggs from the voided joints become scattered on the ground, and disseminated in various ways. The pig frequently swallows them with its food. They sometimes find their way (probably in unfiltered water or on raw vegetables) to the stomachs of human beings. From the eggs thus swallowed embryos, or *proscolices* escape, and are carried by the circulating fluids to remote parts of the body of the new host. They have been known to penetrate to the brain of man, and to cause epilepsy, and finally death. Obtaining a lodgment, the embryos begin to absorb nourishment and to swell, developing at length into what are known as *cysticerci*. These are bladder-like forms with the heads turned inwards. It is the presence of these in the flesh of the pig that causes the disease known as the "measles." Measly pork splutters in the pan, the cysticerci bursting with the heat. When raw or imperfectly cooked measly pork is eaten by man or other animal, the measles (cysticerci) pass into the stomach, and are acted upon by the digestive fluids. The bladder-like case or vesicle succumbs, but the head uninjured passes into the intestines, and fastening itself by means of its sucking appendages, proceeds to develop into the mature tape-worm. Dr. Kuchenmeister, a physician of Zittau, in Saxony, was permitted to administer measly pork to two criminals condemned to death. After their execution ten tape-worms were found in the intestines of one, and nineteen in those of the other.

Thus it will be seen that two hosts are necessary for the completion of the cycle of existence of the tape-worm—the earlier stages are passed in one, the later in another. In the case of *Tænia solium*, the earlier stages are passed in the body of the hog, rat, etc., and the later in man or some inferior animal. *Tænia mediocanellata* passes from the calf or ox, to man or the dog; *Tænia marginata*, from the dog to the hog, etc.; *Tænia crassicollis*, from the mouse to the cat, etc.; and *Tetrarhynchus reptans*, from the sun-fish to the shark, etc.

But of all the tape-worms the most dreadful perhaps is *Tænia echinococcus*. It is said that one-sixth of the deaths among the population of Iceland result from the attacks of this creature, and that there were in the year 1863 ten thousand cases of echinococcus disease in the island. The worm attains to perfection in the dogs with which the island abounds, and its embryos find their ways into the systems of the human inhabitants, and produce the terrible results recorded. In England fatal cases resulting from the same dreadful cause are not unfrequent.

Of hogs slaughtered at the Montreal abattoir "seventy-six in one thousand and thirty-seven were found to be measly—that is, infected by the cysticercus cellulosæ, the cause of tape-worm—and thirty-one were found to contain the echinococcus."—Dr. W. Osler and Mr. A. W. Clements, reported in *Montreal Daily Star*, January 13th, 1883.

Hogs should be confined to a vegetable diet and milk. They should not be allowed to roam at large, and to feed on the garbage of slaughter-houses, etc. The ordinary

butcher's hog should be held in abomination. Scalding water should occasionally be thrown over the floors of the pig-pen and the dog-kennel. Should a tape-worm be voided by any creature, it should be burned immediately or buried deep in the earth. Dried beef, ham, &c., should not be eaten raw. *All* meat should be thoroughly cooked. Especial care in this respect should be taken with sausages.

Trichina Spiralis

This parasite was first made known by Prof. Owen, the famous English anatomist in 1835. It was discovered in its encysted condition in human flesh. Prof. Owen found that the gritty calcareous capsules, that had blunted the dissector's scalpel, contained, in every instance, from one to three minute hair-like worms coiled up conically. This circumstance suggested the name of the parasite to him. A German helminthologist, Dr Herbst, by feeding dogs with trichinous meat, and afterwards dissecting them, discovered the way in which the trichinæ are propagated.

The capsules containing trichinæ, having passed into the stomach, are dissolved by the gastric juices, and the worms are set free. The adult male worm is one-twelfth of an inch long, the adult female is one-eighth of an inch. The latter is ovo-viviparous—she brings forth her young alive. These rapidly spread themselves throughout the voluntary muscles, wherein they at length become encysted, In the case of the human host they must ultimately perish—unless, indeed, the unfortunate man be destined to become a missionary, and to make a meal for inhabitants of New Caledonia, or some other nice people.

It is from the pig that danger of trichinous infection is to be dreaded; and the danger is greater perhaps than people are aware of. It has been found that about one in two hundred and fifty of the pigs killed in Montreal have suffered from trichinosis. Such paragraphs as the following, very frequently appear in the newspapers:—

"Henrietta Straez, of Chicago, ate raw ham at a wedding a month ago, and died on Friday of trichinosis in great agony. Forty thousand parasites were found in a square inch of one of her muscles. A number of other persons who partook of the ham showed evidence of the disease but most of them have been relieved."—*Montreal Daily Witness*, January 21, 1882.

"Four hundred persons are prostrated by trichinosis in ten villages of Saxony, and fifty-one are hopelessly ill. Deaths from the disease are occurring daily."—*Montreal Daily Star*, October 17, 1883.

The symptoms of trichinosis or trichiniasis are as follows:—Loss of appetite, nausea, vomiting, diarrhœa, fever and prostration, soreness in the muscles, painful swellings, laboured breathing, etc. The disease in pigs has often been mistaken for "hog-cholera"; in human beings, for typhoid fever.

The means of prevention are the same as against the echinococcus disease.

The Liver Fluke (*Fasciola hepatica*).

The Flukes, unlike the trichinæ and the tape-worms, are not parasitic through all the period of their existence. They spend a portion of the time on land, a portion in the water. The full-grown liver-fluke is about an inch in length, and is pointed somewhat abruptly at the head, but tapers gradually at the other extremity. It is provided with two suckers—the oral for imbibing nourishment, at the extremity of the head; the ventral at the base of the neck, which is used merely as a "holdfast." The skin of the creature is furnished with numerous microscopic spines. The liver-fluke is found most frequently in *grazing* cattle, and especially in the sheep. The disease it causes is known as the "rot"; and so destructive is it, that, in England, during the season of 1830-31, it was estimated that upwards of 1,000,000 sheep died from it alone. The flukes are sometimes very numerous; Leuwœnhœck counted eight hundred and seventy in one liver.

The life-history of the fluke is a very extraordinary one. It is hermaphroditic When sexually mature it passes from the liver of the sheep, and escapes through the intestinal canal to the open pasture land, where it deposits its thousands of eggs. By various agencies, and especially in wet weather, these eggs are carried into pools, ditches running streams, etc. From the moistened egg a ciliated embryo, or *proscolex*, escapes. This swims about for a while till it comes upon the soft body of some water-snail or insect and to this it fastens itself, After a time it casts away its ciliated covering and penetrates the body of the creature to which it attached itself. When favourably placed, it rapidly develops into what is called the "nurse" or *Sporocyst*, and produces young called *Cercariæ*. These cercariæ migrate, swim about in the water, or wander into the moist pastures. From thence they are taken, either in food or drink, into the digestive organs of sheep, cattle, and (sometimes) human beings. From the digestive organs of their "host" they bore their way to the liver, in which they become encysted, and remain for a length of time. At length, having attained a higher organization, they burst from their enclosures, and become converted into the perfect *Fasciola hepatica*.

The preventives against the fluke that have been suggested are, the confining of the sheep to the high pasture-lands that they naturally prefer, frequent salting, keeping the stock in good condition by the use of cut turnips, oil-cake, etc. Well fed, healthy stock seem as a rule to be less open to the attacks of parasites of every kind, than weak and sickly ones.

Sclerostoma syngamus.

This parasite is the cause of the "gapes" in poultry. It is a small red worm of the thickness of a common pin. The females are half or three-quarters of an inch long: the males are smaller. They infest the wind-pipe of the fowl and cause suffocation. Poultry troubled with them gape, sneeze, and gasp for breath. To relieve them, strip a feather to near the end, dip this in salt-and-water, then slip it dexterously into the wind-pipe of the fowl, twist it around once or twice and suddenly withdraw it. This will dislodge and bring away the worms. It is said that a loop of gut such as is used in fishing-lines may be used effectively for the same purpose. The poultry-house should be frequently and thoroughly cleaned. Wood and coal-ashes should be spread over the floor and occasionally a little carbolic acid should be sprinkled upon it. A little flour of brimstone and ground ginger mixed now and then with warm meal, and fed to the fowls, would be beneficial.

BEE-MOTHS.

REV. THOMAS W. FYLES, SOUTH QUEBEC.

The Honey-Bee (*Apis mellifica*), is not an indigene of America. It was imported by the early colonists; and it soon spread and multiplied exceedingly—the forests surrounding the early settlements affording both sufficient harbourage and abundant food for the ever multiplying swarms.

By the Indians the bee was called the White Man's Fly.

> "Wheresoe'er they move, before them
> Swarms the stinging fly the Ahmo,
> Swarms the bee, the honey-maker."
>
> (*Song of Hiawatha*, ch. xxi.)

"It is surprising in what countless swarms the bees have overspread the far West within but a moderate number of years. The Indians consider them the harbingers of the white man, as the buffalo is of the red man, and say that in proportion as the bee advances, the Indian and the buffalo retire." (Washington Irving: *Tour on the Prairies*, ch. ix.)

And Bryant well sang :—

"The bee,
A more adventurous colonist than man,
With whom he came across the eastern deep,
Fills the savannas with his murmurings,
And hides his sweets, as in the golden age,
Within the hollow oak."

adding with prophetic voice :—

"I listen long
To his domestic hum, and think I hear
The sound of that advancing multitude
Which soon shall fill the deserts."
(The Prairie.)

Fennimore Cooper, in his stories of *The Prairie and Oak Openings* has given delineations of the men, who, on the outskirts of civilization, made it their business to hunt and plunder the bees.

But a spoiler apparently less formidable, but in reality more dangerous, followed up the bee more closely than did its human foes. This was the Bee Moth (*Galleria cereana*.

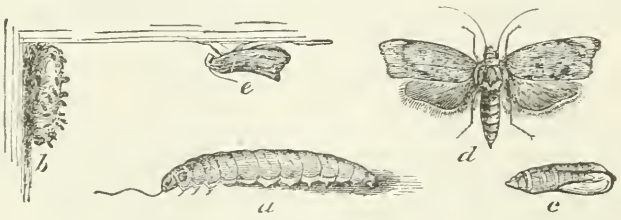

Fig. 46.

Fabr) a fellow exile. (Fig. 46 represents all its stages: *a* the full grown caterpillar, *b* the cocoon it spins, *c* the chrysalis, *d* the female moth with open wings, *e* the male with closed wings.) And now, wherever bees are kept upon this continent, there is danger to them from the "Bee Moth." A few words therefore upon the Bee Moth and its relatives may be interesting to those who have the care of bees.

The bee moths belong to that group of insects called *Pyralidina*, and to the family *Galleridæ* in that group. Insects of the kind were known to the earliest writers on the subject of bees. Aristotle and Virgil allude to them. The former says that the moths and worms are expelled by the good bees; but that the combs of the idle bees perish. The latter numbers "the moths' dreadful progeny" among the enemies of the hive.

In England three different bee moths are known belonging to as many different genera, but all in the family *Galleridæ*. They are *Galleria cerella*, *Aphomia colonella*, and *Achoria grisella*. The first and last named are found in the hives of the honey-bee, and the second in humble-bees' nests. We will take the insects inversely so as to end with the one we are most interested in.

Achroia grisella.

Many years ago I had abundant opportunities for observing *Achroia grisella* through all its changes. My accounts of the insect were published at the time in the *Zoologist* and the *Entomological Intelligencer*. The larva of *A. grisella* is about nine lines in length when full fed, and is rather hairy. It is very active, throwing itself vigorously about at the slightest annoyance. Its colour is white with a tinge of pink. The head and second segment are reddish brown. The spiracles are hardly perceptible. The pupa is pale brown, and is enclosed in a white cocoon. It is usually secreted near the entrance under the inside ligaments of the old-fashioned straw hives. The imago is from six to eleven

lines in expanse of wings. Its head is yellow. The body and wings are grey with a satiny gloss. The fore-wings are rounded at the tip. There are two broods of the insect in the year.

The English naturalist who would see *A. grisella* to advantage should take his stand in the apiary at the close of the day. There he may see the female moths hovering with a bee-like motion near the entrances of the hives. Their object is to dart between the guards, and win their way to the interiors. Notwithstanding their amazing agility they do not always succeed in this. I have more than once seen *grisella* seized by the bees and torn in pieces with the utmost fury. When the door of the hive is passed, however, the chief danger is over, and the moth proceeds to lay its eggs in suitable places within the hive. The larvæ as soon as they burst from the egg begin to spin silken tubes or covered ways, sheltering themselves under their work, and pushing it forward through the hive to the brood-comb on which they thrive most.

Aphomia Colonella.

This enemy of the humble-bee is found both in Europe and America (See Packard's *Guide to the Study of Insects*, p. 329). The moth is an inch or more in expanse of wings. The fore-wing is of a pinkish grey, having a tinge of green along the front edge, it is marked with two serrated transverse lines, and between these with two black dots. The hind margin is entire. In the male insect the basal half of the fore-wing is whitish. The female moth, in the month of June, deposits her eggs, in great numbers, amongst the cells of the humble-bees nest; and the larvæ that emerge from them soon bring discomfiture to the rightful owners.

Galleria Cereana.

The moth that is dreaded by the bee-masters of this country is *Galleria cereana*. In Langstroth's book on bees this insect is misnamed *Tinea mellonella*. It is true that Virgil uses the term *tinea* in speaking of the bee-moth; but, since the days of Fabricius, it has been applied to a genus to which the bee-moth does not belong. In England the moth is called *Galleria cerella*; and Wood in "Insects at Home" tells us the reason why. He says:—"The specific name *cerella* (from the Latin word *cera*, wax) has been given to this insect in consequence of the wax-eating propensities of the larva. Linnaeus being deceived by the structure of the palpi* gave to the male the specific name of *cereana*, and to the female that of *mellonella* (from the Latin *mel*, honey). So in order to avoid confusion, both these have been rejected, and the present specific name accepted in their stead" (page 500). By American naturalists, however, the name *cereana* is retained.

Galleria cereana in its perfect state is a brownish moth, measuring, when its wings are expanded, about an inch across. In repose the wings hang down like the sides of a table. The fore-wings are longer than the under-wings, and appear as if they had been roughly squared off. The female has a beak-like formation of the head, and a remarkable ovipositor, which works with a telescopic motion, enabling it to deposit eggs in crevices out of harm's way.

The insect is wonderfully tenacious of life. Langstroth tells us that Mr. Tidd, of Boston, cut a female in two, and the abdomen went on thrusting out its ovipositor, and depositing eggs in some slits which had been made with a pen-knife in the board on which it lay.

There are two broods of *G. cereana* in the year. The former of these appears in May, and the latter in August.

The larvæ are larger and plumper than those of *Achroia grisella*. In appearance they are waxen grubs, having their heads and second segments horny. Like those of *A. grisella*, they construct silken tunnels; and, like them also, are slightly hairy. I imagine that the hairs serve as feelers. At any rate the larvæ are extremely sensitive, darting back into their silken galleries at the slightest touch.

*The terminal joint in the palpus of the male is short and conoid: in the palpus of the female it is long, tapering, and slightly forked at the end. T. W. F.

A few years ago I laid away, in an unused chamber, a hive, full of comb, that had been vacated by the bees. Examining this hive some time afterwards, I found the comb completely broken down and destroyed. On the bottom of the hive there was an unsightly mass of tangled webs, and fragments of wax, dotted throughout with the black castings of the *cereana* larvæ. The larvæ themselves were gone; but, on examining a heap of pamphlets and newspapers that lay near, I found the leaves stuck together with numerous silken and beautiful white cocoons. From these, in due time, I obtained many perfect specimens of *Galleria cereana*.

The bee-moths delight in ill-constructed hives, in which there are accumulations of old comb. Their presence in any number is a sure sign of weakness in the bees. A hive in which they have well established themselves may be known by its offensive smell.

To banish them the modern hives with moveable frames should be used. Affected comb should be cut away and *destroyed*. It should be remembered that masses of web and broken comb, thrown on the refuse heap, will afford both food and protection to any larvæ that may remain in them, and that, in due time, perfect insects will come forth to invade the hives again.

NOTES ON THE HEPIALIDÆ OF THE PROVINCE OF QUEBEC.

BY THE REV. THOMAS W. FYLES, SOUTH QUEBEC.

The Hepialidæ, in England, are denominated "Swifts," from their peculiarly rapid and oscillating flight. One of their number (*Hepialus humuli*) is called "the Ghost,"—the snow-white wings and hovering motions of the insect having suggested the name.

Our Canadian representatives of the family are few in number, and extremely rare. Three of the four species that have been taken in the Province of Quebec have greater amplitude of wing than most of their British congeners.

Characteristics of the genus Hepialus.

Imago:—Antennæ, filiform and very short. Wings, distant at the base, lanceolate or somewhat falcate. Abdomen, elongate.

Larva:—Naked, elongate. Head and second segment, horny. Feeds at the roots, or in the stems, of plants.

Pupa:—Furnished with short spines on the segments.

Descriptions of Hepialus Moths taken in the Province of Quebec.

Argenteo-maculatus. (Harris.) This fine insect, which is about three inches in expanse of wings, is in colour ash-grey with cloudy markings. The hind wings have an ochreous tinge towards the tips. The silvery spots to which it owes its name are two on each fore-wing. The one nearer the front edge is round; the other is triangular. The insect is described by Harris, in "Insects injurious to Vegetation," page 410. Dr. D. S. Kellicott, of Buffalo, succeeded in raising this species, from larvæ obtained from roots and stems of *Alnus incana* (Can. Ent. vol. xx., p. 233),

Gosse, in the "Canadian Naturalist, (page 248) speaks of *Argenteo-maculatus* (which he names "the Dragon Moth,") as "quite numerous" in the latter part of July in the fields around his residence at Waterville, P.Q. The circumstances in this case must have been very peculiar, for, I think, no one else has found the insect *numerous* in any part of Canada. Gosse found it "dancing from side to side on the wing above the herbage within a space of a yard or two." A female which he pinned ejected small white eggs to a considerable distance with great rapidity. In 1871 I found what I believed to be a pupa of this species in a stem of common alder; but the insect, probably from lack of moisture, perished.

Auratus. (Grote). This beautiful moth is very accurately described by Grote in Can. Ent., vol. x., p. 18., from a specimen taken in the Adirondacks by Mr. W. W. Hill in 1877. It has since been taken by Mr. E P. VanDuzee, at Buffalo, New York (Can. Ent., vol. xx., p. 100). I have a lovely specimen of the insect which I took in Brome County, in July, 1865. It is of a faint purplish tinge. The fore-wings are decorated with pale brown markings and extensive patches like as of dead gold. There are also a pale golden spot, at about one-half the length and one-fourth the width of the fore-wing, and, near the hind margin, three other pale golden spots triangular in form. I took the insect with a net in the dusk of the evening, as it was flitting near the hedge-row of a meadow, on a slope of the "Pine Mountain."

Thule (Strecker) was described and figured by Strecker in "Lepidoptera," No. 12, from a specimen sent to him by Mr. Caulfield, of Montreal. In February, 1884, Mr. G. J. Bowles wrote that Strecker's specimen, a specimen in his own possession, and a third in the possesion of Mr. J. G. Jack, of Chateaugay Basin, were, he believed, "the only specimens in collections" (Can. Ent. vol. xvi., p. 40). Since then the insect has been taken by Mr. W. D. Shaw, and by Mr. H. H. Lyman. The specimen I have was presented to me by the last named gentleman. It was captured in July. Mr. Shaw found the species hovering over and settling upon the Ox-eye Daisy (*Leucanthemum vulgare*), in August, at Cote St. Antoine.

Thule is about two and one-half inches in expanse of wings. It is creamy white in colour. Starting from the base of the fore-wing, and touching the costa for about two-thirds of its length, there is an irregular brownish patch. The costal edge is dark brown, and projecting from this into the brownish patch are three conspicuous dark-brown rectangular spots. On the inner edge of the patch, not far from the base, are two small white spots in dark-brown rings, and on the further extremity of the same edge is a third white spot in a dark brown ring. There are a few other less conspicuous brown spots on the fore-wing, and, towards the hind margin, two slightly scalloped and interrupted brown lines. The fringe on the hind margin is marked with brown spots.

Gracilis. (Grote). This insect, described and figured by Grote, is the smallest of the Quebec Hepialidæ. In expanse of wings it measures one and one-fourth inches. The wings are but slightly feathered. They are of a warm brownish hue streaked and spotted with darker brown. From the inner side of the base of the fore-wing, sweeping round to the tip, is an irregular, pale band. The fringes of the hind wings are brown and white. The only specimen I have of this rare moth was taken at Cowansville, in July, 1881, resting on the under side of a Hoof Boletus (Boletus igniarius.)

THE RISE OF PRACTICAL ENTOMOLOGY IN AMERICA.

BY AUG. RADCLIFFE GROTE, A.M., VICE-PRES. AM. ASS. ADV. SCIENCE (1878), ETC.

There is another kind of moth found in Massachusetts—and with this echo of Dr. Harris's style of writing repeating itself in my mind, I passed under the elm trees, crossing Boston Common. It needed not to feed my imagination that the trees themselves were placarded with Latin titles; I felt that I was upon scientific and sacred ground. For Boston, Science has not come in vain. Rather does she seem to dwell habitually within Bostonian shrines, leaving the temples to her honour in New York empty of the divine afflatus. That long past July day, its heat tempered by a cool east wind, my first in Boston, sheds its light upon me still, while so many of its fellows have passed in darkness from my recollection. I have never since been down by the Back Bay, or wandered Cambridge ways, *sub tegumine ulmi*, without feeling a particular reverence for the place, strange to a wanderer who has passed through many cities of renown. While New York is cosmopolitan in all its aspects, and its Jews and Gentiles combine to produce a *tutti frutti* dish of American science, Boston has a scientific style of its own, descending, with everything else, from the Puritans themselves. No matter who unfolds there his teaching, he tends to lose some part of his individuality, his thoughts take a local cast, he shapes his

words into sentences of Bostonian ring and emphasis. A mighty spirit pervades the people. Professor Louis Agassiz, a great man, was himself influenced thereby, and lately even Dr. Hagen, still resisting the English language and talking of "educating" a caterpillar, after a quarter of a century in the shadow of Harvard, vaguely feels the spirit of Massachusetts. Recently, and since her last great champion for the old order of nature has passed into the eternal silences, Boston has been occupied in moulding Darwinism preparatory to swallowing it. Already it appears as if home-made, and is ready to deceive the very elect. The earlier notion of the origin of mankind was too much in accordance with the simple vigour of Puritan thonghts to be easily abandoned. Whereas the New Yorker quickly changed his mind as to his line of descent, being in any event unequal to the task of tracing it for any length, Boston had to fit the new ideas to the New England eternities of the "Mayflower" and Bunker Hill before they could find favour in her eyes.

But we live now in an age of anniversaries, of semi-centennials and centennials, and among these we entomologists may find the opportunity of commemorating a New England notion, and he who represented it, Dr. Thaddeus William Harris. It is a sign of increasing thoughtfulness, that, along with the memory of distinguished persons, we celebrate the rising of the ideas by which they were animated. Hero worship has not declined, but there is a clearer idea prevailing as to the value of the heroes and the principles they represented, and, in consequence, some changes in public opinion as to the quality of the heroship itself. And it would appear, that whereas public opinion has declined in its estimation of many temporary celebrities and their causes, it is rising as regards Dr. Harris and the cause he represented. Amid the recent wholesale creation of the office of State Entomologist, fifty years after the publication of the first Report on Injurious Insects, we may indulge in a semi-centennial retrospect, and briefly refer to some of the phases of the progress of the science of entomology in America during this period. Yes, it is Dr. Harris who ran the first furrow, and his successors have but widened the field of practical and economic entomology. Out of the eternal movement of atoms and ideas, the New England notion, sent forth through Dr. Harris (1837-1841), has grown in importance, and the States are generally following the example of Massachusetts. In the Botanical and Zoological Survey of this State, authorized by a resolve of April 12th, Dr. Harris was appointed June 10th, 1837, to report upon the insects. The first short report upon the "Habits of some of the Insects injurious to Vegetation in Masachusetts" (1838), was followed by the well known and fuller "Report on the Insects of Massachusetts injurious to Vegetation" (1841).

It is a relatively small world in which my hero moved, and yet it finds room for differing samples from the great world about it. Its members are held together by their devotion to the study, but are otherwise ill assorted and move reluctantly together. We are all men before we are entomologists. Entomology has its scholars and pedants, its men of good and ill temper, its men of conscience and no conscience, of large and small views, kind and unkind. It is clear as daylight of what sort was Dr. Harris. A plain and earnest man, without either assumption or rawness, worthy of study in all his ways, of most commendable disposition. From his picture we get the impression of a sort of good homeliness, which stands as well in a man as good looks. From his writings we gather the certainty that he was a pleasant, honest gentleman. As it is the soul which builds the body, it is certain that Dr. Harris was all of this. Alas, that there are not more like him. Not only should all the newer State Entomologists take him for an example, but the appointing power, in the exercise of a high discretion, should take Dr. Harris as a standard; should know their man before appointing him, nor be deceived by mere dabblers in the Latin names of insects. Men of talent, of the larger views which come of reading and experience, should be sought, for such do not readily present themselves. Unfortunately the appointing power yields without thought to the importunities of those entirely impressed by their own abilities, self conscious, pushing, selfish persons, who sometimes come in this way to fill a position which a better and more modest man would have adorned. Even in entomologists, those dealers in cosmical smallware, the inequalities of life and character are mirrored.

Thomas Say was, perhaps, the earliest American entomologist of wide reputation. At any rate, he described insects in all the orders, and was, for a time, an authority in all of them. After Say's death there came a pause in the progress of technical entomology. Say's wide knowledge of genera and species in all the orders was inherited by no one singly. But Dr. Harris is not to be reckoned among the successors of Say. Dr. Harris gave a fresh turn, a useful impetus, to the science. Entomology becomes under his hands *practical*, a positive help to agriculture. The real successors to Say, with whom commences what I have called the period of renascence in American entomology, sub-divide Say's field and the domain falls into many hands. From a wider view the entomological wave passes from south to north. Commencing at the close of the last century in Georgia with Abbot and the elder Leconte, it reaches Pennsylvania at the beginning of this century with Say, and carries Harris in Massachusetts on its crest before breaking and flooding the continent in all directions. The real successors to Say are Dr. Leconte and, afterwards, Dr. Horn on the Coleoptera; Cresson, Bassett, Norton and Provancher on the Hymenoptera; Osten Sacken and Williston on the Diptera; Scudder and Thomas on the Orthoptera; Uhler on the Hemiptera, with others, bringing the knowledge of genera and species into a completer shape. The Lepidoptera falls into many hands, *anch io son pittore!* There is this about the mere naming and classifying of insects, that, no matter how exactly the work is performed, it carries with it a certain stamp of dilettantism. Only when the scientific knowledge so gained is carried into other domains and made the basis of generalizations upon the laws of life, or when it is carried into public economy and used to further the practical ends of agriculture, does entomology become a serious science. Say's work, with all its merits, has this flavor of dilettantism about it, and he contents himself with giving a brief description of the Cotton Worm Moth (*Aletia argillacea*) and Hessian Fly. But Harris, with a much slenderer acquaintance on the whole with the genera and species of insects, lifts his work out of this atmosphere of dilettantism by the turn which he gives to it, and which is henceforward to make one chief development of entomology in America. Practical entomology is to technical entomology what our everyday language is to Latin. There can be no question which is the more useful. In giving Dr. Harris the credit for this turn of the science, one might enquire into the genesis of the idea itself, but it is sufficient for us to celebrate the semi-centennial of its great incorporator. The successors to Dr. Harris and the natural inheritors of his idea are Saunders and Fletcher in the Dominion; Fitch, Walsh, Riley, LeBaron, Lintner, Comstock, in the States.

The example set by the Legislature of Massachusetts was not quickly followed, and, as in most public matters in America, private enterprise tided over the "New England notion" until it received general official recognition. This private help came principally from Philadelphia where Cresson, Blake and others issued the "Practical Entomologist," in the sixties, and of which periodical I was editor for the first few numbers, to be succeeded by the late Mr. Walsh. These unpaid and unofficial exertions did much to prepare public sentiment, to bring about the present wholesale recognition on the part of the State of the value of entomological researches. From these unofficial sources, as well as others not here mentioned, together with the issue of the *Canadian Entomologist*, which began in 1867, came assistance during the years until the Western States should answer the call of Massachusetts, and Illinois in 1868 and Missouri in 1869, appoint their State Entomologists. Later on Prof. Saunders, in 1883, issued his "Insects injurious to Fruits," of which recently the second edition has appeared, a book which has claims to be placed side by side with the famous treatise of Dr. Harris.

But the State of New York had, in 1854, taken a step in the same direction. In the *Cultivator* for June of that year appeared the following paragraph: "The Legislature of this State (*i.e.* New York) at its late session, placed $1,000 in the hands of the New York State Agricultural Society to be expended in making an examination and description of the insects of this State injurious to vegetation. At a meeting of the Board, Dr. Asa Fitch of Salem, Washington Co., was appointed to carry this object into effect. A better selection could not have been made, and we learn that he is to devote his attent on this season mainly to the investigation of such insects as depredate upon fruit-bearing trees. His report will be looked for with interest and we doubt not will

prove of great economic and scientific value." So far the *Cultivator*, which evidently meant well to Dr. Fitch, although perhaps expecting more results from "this season" and "$1,000," than could well be forthcoming from one head and one pair of hands. Those were still the times when a slight halo of conjuring, a flavor of necromancy gathered about the scientist. The recipe seemed to be: Take a good insect wizard, pay him as little as possible, let him loose in the fields, and the bugs will disappear. The State was anxious for practical returns from its investment of "$1,000" But the Salem *Press* of August 8th, 1854, already saw that there was necessity for more "liberal" funds. In an article, which is as eulogistic of its townsman as the most ambitious Chief Commissioner could require, it says, that "the appointment of Dr. Fitch to carry out the objects set forth, is a very fortunate one for the State; as he is probably more thoroughly acquainted with entomology than any person in the United States. To a scientific and practical knowledge of his subject, he can bring the aid of a ripe scholarship; and should the State be liberal in its appropriations for this object, in the hands of the Doctor, we can look forward, with confidence, to a Work possessing more real value to the Agricultural and Horticultural interests of the Country [the capitals are the *Press's* own] than any that has ever been published." To this effect the *Salem Press*, in its comments on the announcement of the *Cultivator*. How far the Reports of Dr. Fitch to the N. Y. State Agricultural Society met the expectations and merited the praises of the newspapers we shall not here inquire. Mr. Lintner has indexed these Reports. We are here interested in noting the spreading of the "New England Notion" incorporated in Dr. Harris. "Do you take the idea?" asks Massachusetts of New York. It required seventeen years before New York, like a seventeen-year locust, rose to the occasion and appointed Dr. Fitch. When she got the idea she sought for one of her own sons to represent it. At that time at least the place sought the man. As we have said, the antecedents of the idea that a study of insects would benefit the farmer, before it became incorporated in Dr. Harris, are of themselves an interesting subject of bibliographical research. With these we have not here to do, but with the laying hold of the notion by Massachusetts and turning it to practical account. From Dr. Harris's writings we can see that he took something from Kirby and Spence, and it does not seem strange that such an observer should have arisen in the North American colonies founded by the English. It is New England, with her sober and sombre inclinations, which practically gave birth to this active, unornamental side of the study of entomology. And to this earnest spirit, this disposition to take a serious view of life, to enquire what is right and best to do in this world, New England owes her position and influence. We shall here keep this in mind and try to show its importance in our social development. When I think of the part of the world's work performed by the Puritans, then also the echo of Dr. Harris's style rises to my lips—*there is another kind of moth found in Massachusetts.*

But no account of the progress of entomology in America should be given without reference to Louis Agassiz. It is not that, in the single treatise on this subject which I have seen, Agassiz by the force of his genius, lifts the study of entomology into the region of the serious sciences, but it is in his character as a great teacher of nature's secrets that he influences the rise of entomology, its renascence in America, as well. Agassiz preaches not only to Boston, but is sent to the Gentiles also. Everywhere, as the fruit of his lectures, societies spring up and the sentiment for nature is reawakened in scholastic shape. Philadelphia may remain true to its version of science, with its French eighteenth century perfume, to the sober excursions of Leidy, Lea and Wilson, but everywhere throughout the country the halls are filled by the followers of Agassiz. The fault of Agassiz's school, its formalism, its reliance on a label, its rage for classification, as the end and not the means, its devotion to the machinery of science, all this is less apparent in Agassiz himself than in some of his followers. I remember that the prospectus of an Agassiz society in California once fell into my hands. This society was evidently the result of a spurious enthusiasm attending the lecturer. The seed sown by Agassiz had sprung up too quickly and the heat of the day I suspect finished that society. But the prospectus itself was a sufficient comment upon the school which gave it birth. It was nothing more than a cut and dried catalogue of natural objects, commencing with man, *Homo sapiens*, with Order, Family, Genus and Species,—only names and nothing more.

It represented a museum, with everything stuffed or in alcohol, everything labelled, classified, tucked away as disposed of, designated properly once for all, without a live thought to lighten the catacomb. This fire Darwin was to bring and Agassiz's own scholars are to carry the torches, Marsh, Packard, Morse and the rest. The fault of science is its quarrelsomeness, its egotism, its belief, not in humanity, but in itself. Everywhere the doctors are busy naming diseases, but what humanity demands is that its evils should be cured. This is what unfavorably contrasts Science with Religion, with that practice of good conduct, unselfishness, gentleness, that enthusiasm for what is right in itself which an enlightened Christianity displays, More than Religion, Science needs men of the first class, but it is often served by men of the second, mere disputants. Much as Agassiz himself disapproves of the quarrels of scientists, of which I have the proof in a letter, it is undoubted that the rise of Science in America brought this fault to the surface. That Agassiz exercised an influence over Harris cannot be doubted. But Harris had a certain natural quality of his own which resisted an outside pressure and reveals itself as it is in his writings. Beside the widely heard lecturer, Harris becomes comparatively obscure and silent; but the smaller man is nevertheless heard by posterity from the potency of his thought, from the singleness of his purpose. That Agassiz esteemed Harris is to be inferred from his having confided to him the entomological chapter of his "Lake Superior," now a rare book.

Dr. Harris himself is an author who may be read to-day on the subject. The simplicity with which he imparts his information lends a charm to his quiet style of writing. He has the merit of perspicacity. The sentences with their dependent parts, give us clear thoughts clearly expressed, and not only for what he gives us should we be grateful to Dr. Harris, but for that which he refrains from giving; that which it is clearly not in his good nature to give He never misrepresents anyone, nor does he abuse the confidence which the State of Massachusetts has reposed in him by circulating aspersions upon the work of others at the expense of the public. He is extremely careful of other people's reputation, neither ridiculing ignorance nor concealing independent discovery. When Miss Morris came forward with her statement as to the method of oviposition of the Hessian fly in opposition to Dr. Harris's own observation, he merely says, (p. 430): "If, therefore, the observations of Miss Morris are equally correct, they will serve to shew, still more than the foregoing history, how variable and extraordinary is the economy of this insect," etc. Dr. Harris feels, with the candor of a large mind, that he has not (in common with the rest of mankind) sounded the depths of knowledge. He makes room for the unknown, for that at least which he does not know. The consideration which Dr. Harris habitually shows is a proof that he was unacquainted with Hübner's illustrated works when he renamed several species so beautifully figured by that industrious German entomologist. I agree therefore on this head with what Dr. Morris says in Flint's edition of the report, and I regard Dr. Hagen's supposition* that Harris "knew" Hübner's names and rejected them, as doing injustice to Dr. Harris, and as the result of a false estimate of Dr. Harris's character. Dr. Harris is throughout unambitious of himself, intent only on bringing out entomological facts in pursuance of his duty. His report, therefore, nowhere reads like autobiography; it treats solely of the doings of insects, and what must be done by us to circumvent their ravages. With all this there is little of what may be called literary effort, and literary effort may be easily spared in a report, provided the English is good. Dr. Harris is too staid and preoccupied with his work to indulge in humour; such sallies of wit as we may find in him are, however, neither flippant nor tawdry. He incites to a general war against the tent caterpillar: "I beg leave to urge the people of this Commonwealth to declare war against these caterpillars, a war of extermination to be waged annually during the month

* Papilio, 3, 61, where Dr. Hagen says: "It is a rule everywhere accepted that a figure even (*sic*) named can never antedate a description." What Dr. Hagen means is probably that a name, published by figure only, should not be preferred on account of priority. I do not admit that the "rule is everywhere accepted." Dr. Hagen has evidently not studied the literature of European Lepidoptera. Hübner's death left a few plates of the "Samlung" undistributed, but the species are wholly to be attributed to Hübner, not to Geyer. It is different with the "Zutraege," which were completed by Geyer. A comparison of the title pages and preface to the "Zutraege" will sustain this view.

of May and the beginning of June." There is no uncertain ring about this. It is the opinion of the writer that "Carthage must be destroyed." And, after invoking the aid of "every able-bodied citizen" and every "housewife," he ventures to say "that the enemy will be conquered in less time than it will take to exterminate the Indians in Florida." From his language we can see that Dr. Harris stood nearer to the Revolution. The Seminoles we may infer were regarded then as a sort of pest, and the extermination of Indians was always a part of the regular Puritan programme. At any rate, Dr. Harris, here at the outset, recognizes the value of co-operation. Unless the farmers take hold generally and apply the wisdom contained in the State Reports, they will have been issued in vain.

As a technical writer on the butterflies and moths Dr. Harris shows a rare excellence. His account of the butterflies of New England is remarkably full and accurate, considering what had been previously published on the subject. I have always read with keen interest the pages upon which he has given us the histories of the Spinner moths. The natural impatience with which inexperienced entomologists, in their rage for exact nomenclature, are apt to feel at his occasional mistakes, leads them to neglect this portion of the report, which, nevertheless, it would do them good to read and ponder over. These lovely Spinner moths, escaping by the hands of time from the cage of winter, make a hidden glory in the world. On purply wings they cleave the night, in their brushing flight becoming early worn and old through the quick impatience of their lives. We pin them in our boxes and write very learned paragraphs about them, forcing these soft creatures, with their curved and rounded outlines, into our square and rigid categories. But they escape us still, and, after all our efforts, we dissect mere dead chitine at last. Yet it affords a livelihood for some of us butterfly farmers, and, for others, the chance of being sometime remembered by name, of becoming in a way oneself a species lifted out of the individual ranks—the most trifling immortality, to be named in connection with a moth! As I have discovered some facts in the history of the White Mountain butterfly, it may carry some faint memory of me upon its wings. We may remember Dr. Harris by a host of insects which fill our fields each summer. Yet there is something more to be attained than to be thus remembered by posterity. We may feed our souls by study and observation by the way side, gathering with our experience a host of happy memories. Thoreau says: "I can recall to mind the stillest summer hours, in which the grasshopper sings over the mulleins, and there is a valour in that time the bare memory of which is armour that can laugh at any blow of fortune." We must bring something away with us beside our specimens. A healthier mind, a nobler resolve, the virtue that comes from watching the struggle for life, impressing us constantly like the wind that blows upon us and is never quiet. The Hindoos say that, for purity, there is nothing to be compared with wisdom. I do not doubt it. But through action and application we reap the reward of our wisdom and test its value. But what a small field in the stretching prairies of wisdom we entomologists cultivate, whose fences yet contain for us a universe! When the true succession of evolution has been made out, we must still make shift to live and die, still face the same conditions of life and await the same end. The problem of life changes its aspect, but remains unsolvable.

My copy of Dr. Harris's writings is one originally presented by the author to Dr. Fitch. It contains a few marginalia by both, and I give here those of Dr. Fitch upon Harris's account of the Spinner moths. These present some few points of interest, for, while our knowledge is fuller, it is far from perfect, and a certain interest pertains to the remarks of one who followed so closely in the footsteps of Harris. On page 241 of the report, after Harris's account of *Gnophria vittata*, Dr. Fitch writes: "Vide *Lithosia depressa*, Fabr., Sup. p. 460." I have not consulted this reference. I have given, I believe correctly, the synonyms and the name for the variety of this species in my check list. Previously the names were not properly referred. After *Arctia Americana*, Dr. Fitch says: "A specimen was sent to me from Canajoharie, but I have never met with it in Washington county;" and then adds "'till July 27th, 1864." To *Arctia acræa*, Dr. Fitch notes: "I took a specimen at Fort Miller, 1832—where it could hardly have been introduced in the way Harris supposes." This is in reference to the remarks on

page 249 of the report, as to the species being carried in the chrysalis form with the salt hay from the coast. On the larva of *Hyphantria textor*, Dr. Fitch adds: "It here infests the bitter walnut most, and the swamp oak nearly as much." Of the females of *Orgyia leucostigma*, Dr. Fitch says, "They have a dusky dorsal vitta." Dr. Fitch makes no remark upon Harris's *Dasychira leucophæa*, which is probably incorrectly identified. It appears also that the moth determined in the Harris collection as *achatina* is not that species but *Clintoni*. Nor are there any marginalia to *Lagoa opercularis*, which, from the description, is not Abbot's species but perhaps *L. crispata*. In fact Harris, not unfrequently but mistakenly, identifies allied Southern forms, figured in the insects of Georgia with New England species, as first pointed out by Dr. Packard. Dr. Harris thinks also that *L. opercularis* (*i.e. crispata ?*) may be the *Bombyx Americana* of Fabricus. Dr. Fitch further notes to *Clisiocampa Americana* (larva), that, "Their lives consist of repetitions of three acts, eating, sleeping and enlarging or adding to their nests; in fine weather they often repose outside of the nest, lying side by side, closely stowed." To *Gastropacha Americana*, Dr. Fitch adds: "I found this on the white oak in the middle of July in Stillwater, Md." To the account of *Dryocampa imperialis*, Dr. Fitch adds, "On the pines around Philadelphia abundant (T. B. Ashton) locally called the 'Pine Moth.'" With a criticism of Harris's expression "especially *behind* the tip" in the description of *Perophora Melsheimeri*, p. 301, the marginalia come to an end. I have fancied, myself, that the Spinner moths belong to the east and north, in the same way that the Hawk moths belong to the south, the Owlet moths to the West of North America. In fact several species seem to be alpine or sub-alpine, and when we regard the protective cocoon and the frequent woolliness of the moths, one would consider the family fitted for resisting the cold. But it is in reality very generally distributed, and this is a proof of its long existence as a group. The Ghost moths, or *Hepialinæ* are represented over the globe with but little structural variation, retaining in Australasia the general peculiar form which they display in Europe, California, Massachusetts and Brazil. I believe, therefore, that this particular sub-family of the Spinner moths is ancient and has survived many physical changes of the earth's surface. The typical Spinner moths, such as the *Attacinæ*, seem wanting in the West India Islands, from whence also I have seen no *Ceratocampinæ*. This is a noteworthy observation in geographical distribution. I have also noted that the *Ceratocampinæ*, or Hawk Emperor moths, are found over the level country, east of the Rocky Mountains and Andes, not crossing the mountains to the Pacific as it would seem. By a strict comparison of the faunæ of the West India Islands and the continent of North America, some additional light may be thrown on the physical history of these portions of America.

Dr. Harris is an author whom we can conscientiously recommend to students of either technical or economic Entomology, for in the report the two departments of entomological science are not separated; it was hardly time for that; but they must be finally separated, and I have always deprecated the mixing up of technical entomology, in the reports of State entomologists, with economic entomology, their proper subject. Descriptions of new species, opinions as to matters of special classification and nomenclature, all these, with which the technical entomologist deals, are out of place in State reports. What the State intends to pay for is a history of injurious insects and a discussion of the best means to prevent them. There is then a certain abuse of their position involved in the introduction by official entomologists of extraneous matter in their reports. For technical work we have the proceedings of the various societies, the pages of the well-known *Canadian Entomologist*. It was, indeed, the opinion of Agassiz, that names to secure adoption should be published in works offered for sale. There exists, then, some doubt whether technical entomologists should pay attention to reports which are simply distributed and thus not generally accessible. The question here comes up as to the publication of authoritative names in technical entomology. The sole criterion seems to be the recognisability of the object intended. Names for genera are sufficiently legitimized by the statement of the type. The type, an already described species, is something of which science has already cognizance, something known. When we reflect how unequal the generic formulas are, how opinions differ, how rarely, at least formerly, the intimate structural features are given, the justice of this simple rule becomes appar-

ent. Undoubtedly the worker who gives accurate and detailed accounts of his genera is entitled to more praise. As to species, and I have worked much with specific diagnoses in different languages during the past thirty years, there is no standard except recognisability for their validity. And this is imparted by a figure very well, generally indeed much better than by a description. Hence a figure, without description, should secure acceptance for the specific name attached. Although the arts of painting and writing have separated, a fundamental idea unites them and the author and the painter may still be compared. For primitive man expressed his idea by picturing the object before letters were invented. Some writers are like scene-painters, laying the colour on thickly and drawing their outlines boldly. They allow for the distance from which their work will be viewed. The distance of the spectator from the object to be viewed is replaced in letters by the ignorance of the reader of the subject discussed. He is impressed by the treatment because he does not know the subject in its detail, being carried away by the distinctness of the main idea, adopting the writer's view easily because forcibly and singly impressed upon his mind. Other writers indulge in detail work all finely laid on; they are like painters in miniature whose work is executed and may be studied under a glass, of whose general subject, as a whole, one may lose something in following the parts. This comparison is often in my mind between painters and authors so that the shelves of my library seem like a gallery of paintings, mental pictures hang about the titles on the back of the books, pictures affecting me more or less pleasantly. In my thoughts I make the good qualities of many entomological writers my own and thoroughly enjoy them. The splendid industry of Mr. W. H. Edwards, the scholarship of Mr. Scudder, Dr. Packard's talent, the thoroughness of Prof. Fernald, the clearness and gentleness of Prof. Saunders—all come home to me. And Dr. Harris impresses me by his largeness and earnestness. A homely landscape with shade and sun, flower and bee. This largeness and fine simplicity may be influenced to some extent by his surroundings, by the great and venerated University near his work. But the natural man is evidently superior to his surroundings, rises above them at times, although the nearness to such a centre of education gives both elevation and harmony to the soul disposed to receive the impression. All these entomologists are men of the first class, with faults of the second, not men of the second class with faults of the first. About all our work there is a sense of incompleteness, but to ensure our enjoyment the incompleteness must come as an after taste, not at once offend our palate. In most departments of thought there is some one author who, by his calmness and reasonableness, gives us confidence and prevents us from being carried off our balance by the assertions and claims of the rest. Dr. Harris seems to perform this useful office in the literature of entomology; so that, from his writings, one obtains a needed refreshment. He is so genuine, so full of his subject and yet so modest and unobtrusive. The plant of entomology is growing ever, spreading into our lives and affording occupation for many busy workers. But it may be long ere we meet one like Dr. Harris. The personality of man has a feeble beginning, is so little differentiated, but at length it out-tops the universe. A chip of the world which seems greater than the whole. So, in the world of entomology, Dr. Harris will always seem to have been a great man. All writers appear to stand at different angles to the truth, which, as Turgeniew says, we cannot grasp as with hands. The position which Dr. Harris occupies as to the truth which is in the science of entomology, is most direct. In the meantime we are year by year adding to the picture of the science, filling out the pattern after Nature, describing species after species. When shall we get to the end of our catalogues?—*there is another kind of moth found in Massachusetts.*

SOME THOUGHTS ON THE DETERMINATION OF SPECIES.

BY J. ALSTON MOFFAT.

Much dissatisfaction is expressed with the determining of species in entomology on the structure of the imago alone, and great advantages are anticipated when the earlier stages of insects are all worked out. A laudable desire is expressed in the writings of the various workers in systematic entomology to bring their methods as much into harmony with Nature as possible; this is hopeful. A naturalist should allow no personal preference for one system over another to influence him in his work; his attitude should be to discover as much as possible of Nature's mode of operation, work on parallel lines, and construct his system accordingly.

Now, as there is considerable divergence in the direction to which these labours are tending, it seems to indicate that there is a decided difference of opinion about what Nature's method is, or a misunderstanding of its interpretation. No one can have been engaged in the investigation of any department of biology without being impressed with the fact that Nature is not constructed on any principles of mathematical exactness; therefore, any system aiming at that must be, just in proportion as that is attained, artificial.

Now, a form is often met with in life that seems to fit in nowhere comfortably, whilst another has so many points in common with widely separated forms that it is difficult to decide just where to place it; hence, I suppose, the temptation to multiply divisions, and give them places to themselves. One great objection to our present method of dividing into genus and species is, that it often has the effect of separating forms in a way that Nature has not. When a form is termed a "species" it stands apart from its fellows to some extent; if it is placed in a different genus it stands yet further apart. When we look at a check list, with its divisions and subdivisions made with exactness, and names with apparently no natural affinity, one would expect to be able to separate the various parts with ease; then look at a representative collection; what a contrast! To the uninitiated the surprise is, where the necessity was for separating the great bulk of them at all. We may in a joke tell him that in the name is easily seen the difference, but we have to acknowledge that in the insect it is microscopic. But divisions have to be made, and that they may be made just where Nature indicates, it is desirable that those engaged in the work should know the life history of the insect, its habits and mode of life, as well as its appearance in its various stages.

A knowledge of structure only—size, form and color—is sufficient for the purpose of describing and naming an insect, the object of which is future identification. If that knowledge includes the earlier stages, so much the better for the purpose, but a good deal more is required of him who would endeavour to give it its natural position in a system, and it is unfortunate that much of this latter work has been done by those only partially qualified for it; the "mere collector" often having more knowledge of Nature than the accomplished scientist.

Do the divisions of genera and species meet the requirements of nature? Dividing lines, to be of value, should be stable; they look rigid; life in Nature is never rigid, and its dividing lines are of the most undulating and irregular character. Scientific terms are exact, and it was found that genera and species did not meet the requirements of science, so varieties were added to supplement them, and now the principal trouble centres around species and varieties, no definition of the term "species" being satisfactory to all, and the kinds of varieties being many, and the origin of some of them unknown.

Our knowledge of the laws of propagation in the animal economy is principally derived from the experiments with animals in domestication, and the results attained show the marvellous extent to which variation can be carried when continued for a length of time, and we may safely conclude that what man cannot do in this direction Nature never does. The terms used in this work are species for all forms that, when brought together

produce fertile progeny ; varieties for all the various forms from such a union ; hybrids for such as are invariably infertile from a given union, such uniform infertility being taken as a proof that the parents belonged to different species. This arrangement is brief, natural, easy to comprehend, and exact, and is as applicable to animal life in Nature as in domestication. The way man obtains his varieties is by careful, intelligent selection and isolation ; no such control being known to exist in Nature for such a purpose, the appearance of varieties there must be referred to some other cause. Many species vary greatly, a few seem not to vary at all. There are many kinds of variations—1st, sexual, where the sexes differ in size, form and color ; 2nd, seasonal, different broods of one species appearing at different times of the year, differing in some respect ; 3rd, local, where different forms of the same species are found in different localities ; 4th, well-marked varieties of some species, found in the same locality, coming from the same parents, belonging to the same brood ; 5th, species that give broods in which no two specimens are exactly alike.

Into the causes of all this I do not enquire ; it is in the constitutions of the organisms; how it got there we may never know ; it is a fact of their existence, that is enough for the present. One thing we may be certain of, it is not of recent origin, it may have been accumulating for times indefinite. About the first there is no trouble when once the fact is known. The second has been satisfactorily dealt with in the last check list of North American butterflies. The fourth wants to be dealt with in the same manner ; the mode of speaking of "a species and its varieties" is not in harmony with Nature. A species is one, its parts may be many, and each of them is of equal value in the make-up of the species ; the varieties of a species seem to express the natural relationship. In the fifth there can be no separation made. Now for the third : migration is well known to be a habit of many insects ; that the external influence of "climate and environment affects the descendants from a common parent form" is also a well-known fact in every department of biology. Some insects are extremely sensitive to these influences, a slight change in location producing a perceptible difference in their appearance. Others are found in widely separated parts of the globe with no perceptible difference in them. All kinds are not affected in the same way or by the same influences. We know that in and in-breeding of domestic animals has the effect of producing a fixity of type that is afterwards difficult to overcome. So here, a lengthened residence in one locality will give the influences of that locality an opportunity to impress themselves on the resident and its descendants, which will tend to give the change produced a more permanent character. Now, if we breed two such migrants through all their stages and find them differ from one another in each, are we warranted in concluding that they are two species ?

Dr. McMonagle, in his evidence before the Ontario Agricultural Commission, says that he has examined the egg-cells of horses under the microscope, and found that the cells of the thorough-bred were all of the same type, form and vitality, whilst those of the cross-bred were not so, and that he could distinguish the one from the other. Now, if such a change is produced in the higher forms of life, how much more likely in the lower ? It is by crossing the two forms that we are to discover whether they are species or the varieties of a species. How often do we meet in entomological literature with such expressions as, good species, true species, separate species, distinct species ; as if there were species that were not good, true, separate, and distinct ; scientific terms ought not be so handled. Let me refer to the *Colias* controversy for illustration. We have various forms extending from the Atlantic to the Pacific ; a large number of these have been investigated, carefully described, and distinguishing names given to them, and unfortunately termed species, and placed in the catalogues as such. Some one discovered sufficient proof to satisfy him that they are not species, and wished to abolish eight or ten names and bundle as many separate forms under one name and call that a species. This seemed to make it necessary, to save the descriptions and distinguishing names, for some one else to try and prove that they were species ; and so it went on. Now, as the object of describing and naming is for future identification only, and not to settle the question of its standing, which can be done at any time when sufficient information has been obtained, without disturbing anyone's description and name, let all the forms that have been discovered to be of direct kinship, from east to west, north to south, be placed under *Philodice* (I use

this name merely because it is old and well known), and the distinguishing name after ; this would give us at a glance the correct relationship of the various parts ; and if their residence in latitude and longitude can be fixed and indicated, so much the better. This is the manner in which my third division wants to be dealt with. What a charming "constellation" they would make in our catalogues and cabinets ; so distinct and so natural, and expressive of the extent of our knowledge of their kinship and distribution ; laying a solid foundation for future investigation, and offering strong inducements to make yet further conquests in the same direction.

From what we now know of the earlier stages of many butterflies, it can be seen that species are not to be clearly defined by these any more than by the mature insect. They can be gathered into resembling groups, in the one just as they can in the other, but that will not decide, this way or that, their specific value.

How genera are to be brought into harmony with nature I really do not at present see, except by abolishing them altogether and dealing with large, loose, family groups. This would have something of the effect of removing high board fences from around small lots, which were intended to prevent trespassing, and compel each one to remain within his own legal limits, and, indeed, not even to see beyond it. Such grouping would give the genius—the man of insight and extensive knowledge—a better opportunity to arrange his material more in accordance with their natural affinities, restore that unity and harmony which exists in Nature, making it apparent to the casual observer by the removal of the "high board fences" of our present artificial divisions. I have often thought when reading the descriptions of the early stages of many forms that if we were to call our present "genera" "species," and our present "species" "varieties," we should be much nearer to Nature's divisions than we are now.

The migratory habits of insects, and the external influences of environment to change and modify their appearance, should never be forgotten in any effort to decide their place in systematic arrangement. This is not a thing of recent occurrence, it has been going on ever since insects were first introduced into this scene of life, so that they may have in their constitutions inconceivable possibilities that are only awaiting a favourable opportunity to manifest themselves ; which must ever make structure an uncertain foundation to rest upon. Then man must have been the means of greatly complicating Nature's operations. We know something of what he has done in recent times, and he has been doing similar work during all his history, but observing it not ; so that we can have but little knowledge to-day of the original form and habitat of any species, whether they belong to this continent, that, or the other, or whether similar forms of all the continents may not be but geographical modifications of one species, investigation having little, if at all, taken that turn.

MISCELLANEOUS NOTES :—Gathered from various Quarters.

Statistics of Loss from Insects.

In *Insect Life* for August, 1889, there is given a carefully prepared table showing the loss to the cotton crop in the State of Texas, in consequence of the ravages of the cotton worm, (*Aletia argillacea*). The quantity of bales of cotton actually produced during the season of 1887 is given for each county in the State in one column ; in the next the percentage of loss from these insects ; and in a third column the product that there would have been without this loss. The total result shows that there were 1,125,499 bales of cotton actually gathered in the State ; the average loss was 21 per cent., though in some counties there was none reported ; and the crop that should have been gathered, if there had been a total exemption from insect damage, was 1,422,948 bales. This makes an aggregate loss for the State of 297,449 bales ; the value of each bale on the spot was a little over $40 on the average. The actual money loss to the planters of Texas from this insect in a single year was, therefore, the enormous sum of $11,897,960. But Texas is only one of many cotton-growing States, and its production is about one-

fifth of the whole product of the south. Throughout all that region—the cotton belt as it is termed—the worms were pretty equally active in their operations. We may safely estimate then, that the total loss to the cotton growers of the Southern States in 1887, occasioned by these insects, was not far from the appalling sum of sixty millions of dollars. It is a wonder that so shrewd a people do not see that it would pay them well to expend a hundred thousand dollars a year upon practical entomology, if it resulted in the saving of even one-tenth of this enormous sum.

Caterpillars Stopping Trains.

We have occasionally observed in the newspapers brief notices of such occurrences, but have rarely been able to learn what particular insect was referred to. A correspondent of *Insect Life*, (Mr. S. Webster, of Mattawamkeag, Maine), has sent the editors the subjoined account of a stoppage on the new line of the Canadian Pacific Railway, in Northern Maine, occasioned by caterpillars; the report is taken from the *Upper River News* of that State. Mr. Webster has also stated that in the Northern Penobscot region, the same worm defoliated most of the orchards, and all of the poplars, leaving them as bare as in mid-winter. From specimens sent it was ascertained that the insect was the Forest Tent caterpillar, (*Clisiocampa sylvatica*): we give an illustration of this familiar pest, fig. 47. Mr. Webster found that it seemed to prefer poplar, and also fed upon oak

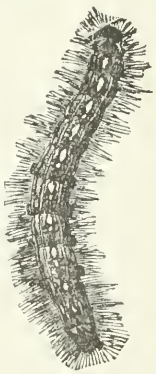

Fig. 47.

and cherry, and after these were stripped it attacked the elm, gray birch, willow, rock maple and some other trees.

"The grand march of the caterpillars.—They blockade a train on the Canadian Pacific.—Freight locomotives and railroad men powerless.—Mosquitoes join in the raid and do bloody work.—Additional motive power and sand effect their release.

"The first freight train run in connection with the Bangor and Piscataquis over the Canadian Pacific, met with a novel and what at one time threatened to be a serious as well as a laughable mishap on Sunday. Our managing editor was in it. At a point a few miles from Sebois, on the Canadian road, the Messrs. Pierce Brothers, of Milo, had collected 1,500 ship knees, and Superintendent Van Zile sent down a big engine and eleven flats to draw them up to Brownville crossing.

"They were loaded, and the return trip of fifteen miles was begun, which occupied ten hours. When the train had proceeded a few miles, and when it was on a short grade, it was brought to a standstill by an army of small, gray caterpillars, greasing the track and driving-wheels to such an extent as to almost entirely suspend friction between the rails and the driving-wheels. In some places they were half an inch thick, and the army stretched out eleven miles.

"The night previous, as the time-keeper, who had about twenty miles to cover, was working homeward on his jigger or railroad velocipede, he encountered the advance guard, and for half a mile pushed his machine along the rail by hand.

"Section men undertook to sweep them off with alder bushes, but the slight touch of the twigs would crush them and lubricate the rails, and the mass formed like dough upon the driving-wheels.

"The train in going down passed through these and others, but the big collection came during the forenoon, and while the knees were being loaded. Of course, sand was used, but it did not avail much, and Superintendent Van Zile was wired, and he ordered out another locomotive from Sebois.

"On her arrival there began a series of charges at that grade, which now had been liberally sprinkled with sand, but the animal life was so thick that various attempts were unsuccessful, and it was not until late at night and the sun had gone down that the creeping things desisted in their march.

"With these there had come clouds of mosquitoes, and they very materially aided the other insects by pitching most vigorously into the men, seemingly drawing blood from all nationalities alike, and the sight of a sweating, swearing railroad laborer, frantically brandishing alder boughs over his head with one hand, while with the other he scraped caterpillars, was laughable in the extreme.

"The matter has at once engaged the attention of Superintendent Van Zile, who is trying to find out from the encyclopedia how long the march of these Maine hosts continues, and it is quite likely that the road alongside this section will be ditched and flooded with running water. Nothing like it was ever known hereabouts before, but then sunlight was never before let into the wilds of Maine as the Canadian road has let it in, and there may be unknown difficulties to come consequent upon it."

The Effect of Arsenical Insecticides upon the Honey Bee.

The prevailing opinion seems to favor the theory, that if arsenical mixtures are sprayed or dusted upon fruit trees while the latter are in bloom, the bees which frequent them will be destroyed. With this idea in view fruit-growers have very properly been cautioned not to use these mixtures during the blooming season, and in fact this has been urged as an argument against the use of these substances as insecticides.

The writer, while in Louisiana, was told by planters that dusting Paris green upon the cotton plants, killed the bees which frequented the blossoms thereon for the purpose of securing the nectar which was contained in them.

There appears, however, to be some good negative evidence bearing upon the problem, which it will be well to consider before forming a decided opinion in this really important matter.

Mr. Edwin Yenowine, a fruit-grower near New Albany, Ind., is a very strong advocate of the use of arsenical mixtures, as against both Codling Moth and Plum Curculio, and is also, to a limited extent, engaged in apiculture.

Some time ago, while spending a day with Mr. Yenowine, he reminded me that several years ago he had written me as to the probable effects on bees of the use, during the blooming season, of these arsenical mixtures, and had received a very cautionary reply. It appears that instead of following my advice he sprayed all sorts of fruits freely during a period of two years, both in and out of the blooming season, and instead of destroying his bees they have increased from eight to seventeen strong, healthy colonies, and have furnished honey of which he and his family have partaken freely. This conversation with Mr. Yenowine took place on the 23rd of June, so that the increase shown was practically that of one unfavorable season, that of 1888.—F. M. Webster, La Fayette, Ind.

Remedy for the Plum Curculio.

In the bulletin of the Ohio Agricultural Experiment Station for September, 1889, Mr. Clarence M. Weed gives the following results of his experiments carried on through two seasons, upon two varieties of cherry trees and four of plum trees, and during which the large number of 65,500 cherries were individually examined, and any insect injuries carefully recorded. He finds that "About three-fourths of the cherries liable to injury by the Plum Curculio, can be saved by two or three applications of London purple in a water spray, in the proportion of one ounce to ten gallons of water; (2) That a sufficiently large proportion of the plum crop can be saved by the same treatment, to insure a good yield when a fair amount of fruit is set; (3) That if an interval of a month or more occurs between the last application and the ripening of the fruit, no danger to health need be apprehended from its use; (4) That spraying with the arsenites is cheaper and more practical than any other known method of preventing the injuries of this insect."

Remedies for the Striped Cucumber Beetle.

The same careful observer, Mr. C. M. Weed, gives an account of his experiments with remedies for the Striped Cucumber-bettle (*Diabrotica vittata*)—the very common-yellow beetle with black stripes along its wing cases (Fig. 48), which attacks cucumbers, melons, squashes, and other plants of the same family. A great many remedies and preventives have been recommended for this insect. In order to test the efficacy of these, Mr. Weed has carried out a series of experiments, and furnishes the following summary of results:

Fig. 48.

The methods recommended were divided into four classes, viz: 1. The use of offensive odours in order to keep away the beetles. 2. Coating the plants with substances that would produce a mechanical barrier to their feeding. 3. Poisonous coatings of the leaves in order to kill the insects. 4. Preventing their attacks by enclosing the plants under some form of tent or gauze-covered frame.

The experiments were made on a large scale under ordinary field conditions during the summer of 1889, when the striped beetles were exceedingly abundant.

Five substances of the first class were tested, viz.: hen manure, cow manure, kerosine, carbolic acid and bi-sulphide of carbon. None of them proved practically successful.

Three substances of the second class were tested, viz.: Coal-soot, gypsum and saltpetre. Of these the soot and saltpetre proved worthless, while gypsum showed some beneficial effect, but not enough wholly to save the plants.

Three substances of the third class were applied, viz:—pyrethrum, "slug-shot," and "peroxide of silicates." Pyrethrum (Persian insect powder) killed those beetles with which it came in contact when first applied, but soon lost its efficacy. "Slug-shot" injured the plants to which it was applied. "Peroxide of silicates" had a decided effect in preventing injury, and where the plants had been well started before being attacked saved them from destruction; but it did not save them when the beetles were so numerous that they burrowed down to meet the sprouting plants before they were out of the ground.

The results obtained from the fourth method—that of fencing out the insects by covering the plants with some form of tent or gauze-covered frame—were by far the most satisfactory. The cheapest and most successful method employed is that of protecting each hill by a piece of plant-cloth or cheese-cloth about two feet square. This may be done simply by placing it over the plants and fastening the edges down by small stones or loose earth. It is better, however, to hold it up by means of a half barrel hoop or a wire bent in the form of a croquet arch.

Mr. C. P. Gillette, in the bulletin of the Iowa Agricultural Experiment Station for May 1889, gives an account of his experiments on this insect, with much the same results

as those obtained by Mr. Weed. He found, however, that *dry* pyrethrum dusted over the plants in the early morning (5 a. m.) was a complete success. "At this time in the morning the beetles are cold and sluggish, and their bodies damp with the dew of the night, so that they do not fly away, and every particle of the powder that falls on them sticks. Forty hills of squash vines were treated in this manner with two ounces of the powder, and at two o'clock in the afternoon 280 dead beetles were counted about a single hill of five small plants."

Bird Murder in France and its effect upon some Noxious Insects.

Any one who takes a walk abroad in the rural parts of France, when farming operations are going on, will often see small children following the plough armed with small pitchers, into which they put all the white fat grubs of the cockchafer which are turned up. In England the rooks do this work, without young children being withdrawn from school or from play. But the French sportsman has nearly extirpated these useful birds. A recent iniquity is the systematic destruction of the swallows on their return from Africa. Emissaries of the Paris *Modistes* fix up on the shore, about the points where the birds usually land, long wires connected with powerful electric machines. The wearied swallows perch on the wires and are struck dead by scores. Their bodies are then sent off to Paris to ornament women who are a disgrace to humanity. The saddest feature is that our English contingent of martins and swallows arrives by way of France, and will doubtless be cruelly decimated.—J. W. Slater, in *Science Gossip.*

We do not know which to wonder at the most, the industry of the women or the numbers in which the White Grub (larva of the European *Meolontha vulgaris*) must have occurred in the soil, in the statement made by M. Reiset and quoted in "*La Nature*" for the 18th of May, where it is stated that in a field of about one hectare (2½ acres) a single woman collected 759 pounds (344 kilograms) of these White Grubs or Cockchafer larvæ in 15 days. The actual number of grubs was estimated at 180,000.—*Insect Life.*

Blackbirds vs. Corn Boll-worms.

My field of corn was in full roasting ear, and the blackbirds were swarming in it. My hired man came to my library and told me we must get some boys with guns to shoot blackbirds, or they would ruin our corn. He added, "The neighbors are all in their cornfields shooting to drive away the blackbirds." I told him to wait until I had time to see what the blackbirds were doing. On entering the field there were enough blackbirds in sight to have ruined the field of corn in a short time. I spent an hour or more in the field of 24 acres, and did not find an ear that showed the birds were eating the corn. The birds would light on the ears, and spend but a short time there, and pass to another ear. I noted ear after ear that I had seen a bird on, and I always waited until the bird had finished his work on it. I found on every such ear the marks of the boll-worm. They were developed enough to have commenced eating the grain. There were the evidences that the worm had been there, and I saw the blackbirds there, and making passes as if picking out the worms, and after the bird had left the ear I could find no worm. The birds seemed to be busy hunting and eating this destructive and disgusting pest. I left the field pleased and grateful to the blackbirds. I told my hired man he need not waste any time or powder on the birds. They were welcome to hunt worms, and could take what corn they wanted to make a variety. Now, this is not sufficient to show that blackbirds are in the habit of feeding on boll-worms, I know, but it satisfied me that the birds were destroying thousands of them for me. The season was dry, the meadows were short, and the grass dried on the hillsides overlooking my bottom fields. The conditions were these: corn in full roasting-ear, the earth dry, and the weather hot. The corn at husking time was not injured by birds more than usual, which is so light as to be almost inappreciable. I hope I may have opportunity this season to make further observations, and that the good work of the blackbirds may be established by many witnesses.—L. N. Bonham, Columbus, Ohio, in *Insect Life.*

Sparrow Destruction in Australia.

Miss Eleanor A. Ormerod, consulting entomologist to the Royal Agricultural Society of England, has forwarded a donation of £5 to be applied to the destruction of sparrows in South Australia. A subcommittee of the Royal Agricultural Society of South Australia has undertaken to raise subscriptions in aid of this worthy object, and it is proposed to have monthly competitions in the production of sparrows' heads and sparrows' eggs. These competitions will take place after the next autumn show in Adelaide. At the autumn show there will be a grand prize competition, when prizes of £2, £1 10*s*., 10*s*. and 5*s*. will be offered for the largest number of sparrows' heads, and the same value in prize-money will also be offered for the largest number of sparrows' eggs. Additional to this, every competitor who fails to secure a prize, and yet brings in 100 or more heads or eggs, will receive a bonus of 2*s*. 6*d*., and any one producing under 100 and not less than 50 heads or eggs will receive a bonus of 1*s*. These prizes and bonuses ought to encourage the boys to exert themselves.

An American paper tells us that: "There is a scarcity of our native song birds; the sparrow drives them away and destroys their eggs and young. Dr. Merriam estimates that a pair of sparrows in ten years will increase to 275,716,983,698. They migrate over the country in grain cars, in which they have been caged while stealing breakfast. They can be destroyed by throwing down a handful of wheat and shooting among them with fine shot. The owl and hawk are very helpful and should invariably be spared."

In Victoria the fruit-growers are becoming alarmed at the depredations of the sparrows, which are exceedingly numerous. A Bill was lately placed before the legislature there, to provide means for relieving cultivators from this pest, but, as in South Australia, it was opposed by those who were not subject to losses, who were too indolent to examine into the truth of the complaints made, or who were too selfish to interfere in a matter in which they were not directly and personally concerned. A few of the opponents were led away by statements that the Sparrow does little harm in its native home in England, but it is a fact that it does a great deal of damage, though it is there kept from increasing so rapidly as in Australia—first, by the colder weather, which limits the breeding season to a month or two, whereas in Australia the season lasts nearly all the year through; and secondly, in England there are many owls, hawks and other enemies which prey upon the Sparrows, whilst in Australia these enemies are almost entirely absent. Perhaps, when it is too late, the opponents to the Sparrow bill will find that their pockets and personal comforts are very intimately affected by the presence of hordes of these little pests, which drive away all the insectivorous birds, but will not touch an insect (except from pugnaciousness), but which will eat all the seeds of all the plants that grow in the fields, spoil all the fruit that is produced in the orchard and vineyards, and even attack the vegetables and flowers in the gardens when there is nothing else to destroy.—*Garden and Field* [Adelaide, South Australia], January, 1889.

How to get rid of Ants.

Professor Fernald, in an interesting paper on Household Pests in the Bulletin for July, 1889, of the Massachusetts Hatch Experiment Station, gives the following remedy for ants when they are troublesome in the house from their attacks upon sugar and other sweets: "It has been recommended to sprinkle sugar into a sponge and place it in their path, and as it fills up with ants several times a day immerse it in hot water to kill those adhering to it. This will undoubtedly prove successful if carefully followed up for some time; but when we remember that the females are constantly laying eggs to produce workers which will take the places of those already destroyed the task seems almost hopeless.

"There can be no doubt that a better method would be to follow the ants carefully and discover, if possible, where their nest is and then destroy the entire community by

making one or more holes down through the nest and then pouring in a teaspoonful of bisulphide of carbon, carefully stamping down the ground afterwards to close the holes. The fumes of this substance will penetrate the nest in all directions and destroy the entire community."

Dr. Riley, in the October, 1889, number of *Insect Life*, gives an interesting account of a successful effort to get rid of the large black or brownish ant which is often so great a nuisance in dwelling houses. "A case was brought to my notice, he says, two years ago in Washington, where a fine old homestead was on the point of being sold on account of the annoyance caused by these ants. An investigation showed one enormous nest several feet in diameter in the back yard, and several colonies here and there in other parts of the premises. The large colony was completely destroyed by the use of bisulphide of carbon. A teaspoonful was poured down each of a number of openings, and a damp blanket was thrown over them for a few minutes. Then, the blanket being removed, the bisulphide was exploded at the mouth of each hole by means of a light at the end of a pole. The slight explosions drove the poisonous fumes down through the underground tunnels, killing off the ants in enormous numbers. The main source of the trouble being thus destroyed, the nuisance was greatly lessened, and all talk of selling the old place has ceased."

A FLOCK OF BUTTERFLIES.

BY S. W. DENTON, WELLESLEY, MASS.

While in the interior of New Guinea, in August, 1883, I observed what might properly be called a "flock of butterflies." They were apparently of one species, (of a dark-brown color, with a blue reflection on the fore-wings in a certain light,) and in such great numbers as to actually blacken the green bushes on which they lit. I first came across them one day, while out after birds, in a thick and shaded part of the tall forest in low land adjoining the Laloki River. Being so numerous I supposed it would be an easy matter to catch all I desired without the aid of a net, but after several unsuccessful attempts, in which case they would rise in a cloud and settle again in a few moments on the bushes close at hand, I was obliged to give it up. They did not seem to be very much disturbed at my approach, but would not, however, allow me to get very near without taking flight, as soon as I remained still they would immediately settle on bushes and foliage close by, but always out of reach. The flock was perhaps two acres in extent, but the butterflies were not equally numerous over this entire area, in some places every bush, branch, twig and leaf seemed to be covered with them, while in others there were comparatively few. What their object was, or how long they remained in that locality, I am unable to say, except that on visiting the place several days afterwards they were still there in apparently undiminished numbers. I might add none were seen feeding, and so far as I observed there were no flowers in bloom anywhere in the vicinity.

CATCHING BUTTERFLIES BY MEANS OF DECOYS.

BY SHELLEY W. DENTON, WELLESLEY, MASS.

It has long been a matter of fact to me, and one which has served a good purpose and doubtless to other readers of the *Can. Ent.*, that many butterflies, especially the larger kinds, are attracted by decoys resembling themselves in size and colour.

So many incidents of this nature have crowded themselves upon my notice that I trust it will not be considered presuming on my part to enumerate a few of them, and at the same time state the benefits to the butterfly hunter which may arise from this source.

My attention was first called to this fact some fifteen years ago while collecting in the neighborhood of Boston. I caught one day an example of *Papilio Turnus*, after taking the insect from my net, and while holding it in my fingers preparatory to placing

in my collecting box, another butterfly of the same kind darted down at the one I held and fluttered above it for a moment as if to entice it away. I was so surprised that no attempt was made to capture the visitor until it had risen beyond reach. Expanding and placing on a bush close by the almost lifeless butterfly which I had held in my fingers, and partially concealing myself, I awaited the insect's return, nor was I disappointed or obliged to wait long. I could catch an occasional glimpse through the bushes of my intended victim; nearer it came till, hovering for a moment above my decoy, it was easily secured. This plan was followed during the rest of that day, and more or less since that time, with gratifying results, having caught as many as 37 Papilio Turnus in a day, and that, too, in a place like Eastern Mass., where they are, so far as my experience goes, not very common.

While in Nevada, in the summer of 1887, this method was followed with good success in the capture of *Papilio Rutulus, Eurymedon* and *Daunus; Argynnis Leto, Nevadensis* and *Coronis, Limenitis Lorquini* and others. I found a piece of bright yellow paper, cut out to resemble *P. Rutulus*, proved almost as attractive as a butterfly of that species, and even a yellow leaf which I picked up and placed in a conspicuous spot answered the purpose very well once to enable me to secure a decoy.

I find the best place to expose a decoy is in some sunny nook where an occasional specimen of the species of which you are in search is seen, allowing the full rays of the sun (provided your decoy is a butterfly) to strike on the expanded wings. It is usually my custom to cut down the green bushes, except, perhaps, one in the centre of the opening, and stripping the leaves from the tallest sprig or branch, place my decoy on the point. The decoy may be a badly damaged specimen, one not fit to preserve.

This method applies best to the larger and stronger flying species of butterflies, and these are the ones the hunter has the greatest difficulty in procuring, especially if the country is rough and broken so that he is restricted in his movements by deep gullies, cliffs or large loose rocks. Occasionally the hunter will have an enemy in the shape of a large dragon fly, which will pounce on the coming prize just as as you are about to "scoop" it in; then away the two will go, the butterfly soaring and flapping often till almost out of sight in the vain endeavor to rid itself of the enemy which has taken such a death-like grip upon it, but this shark of the air is, in the end, generally victorious.

In some countries, such as Australia and New Guinea, and I speak of these because of personal knowledge, there are large and showy butterflies of very powerful flight which are almost impossible to catch on the wing, not only being shy but high flyers, and I know of no way in which they can be taken so readily as by the method above described. I refer particularly just now to that large and magnificent blue butterfly (Papilio Joësa) which in Northern Queensland may be seen alighting on or floating above the tops of the forest trees, occasionally flashing in the sunlight like a star of unusual brilliancy. It is a magnificent sight to a butterfly hunter, and one that will fill him with enthusiasm, but one likely to be of great disappointment should he wait for it to come within reach or settle near the ground where it could be taken with his net, for nine times out of ten, when it takes flight, it will sail around and away over the tops of the trees till lost from view, unless you have something to catch its eye and cause it to descend from its elevated position. Now procure one of the same species and place it in a conspicuous place in the sunlight, conceal yourself near by, but be ready to strike at a moment's notice, and await the result. Your decoy will most likely soon be seen (for it is wonderful how quickly a butterfly will discern one of its own kind) and down will come the longed-for prize to your delight and satisfaction, but you must sweep with your net at just the right time or the opportunity is lost. But perhaps you will ask how is the first specimen or decoy to be obtained? This is often a matter of considerable difficulty, I was accustomed, when rambling in the forest of that country, to carry a gun, and although when obtained by shooting they were generally in a rather dilapidated condition yet they served the purpose of a decoy very well.

One thing which has always surprised me is the remarkable sight, and perhaps sense of smell, which some insects seem to possess. Often while having a decoy exposed I

have been startled by the sudden appearance of a butterfly when none were apparently in the neighborhood.

The causes which lead to the attractiveness of decoys, no doubt, are various, possibly the passing butterfly, on seeing the decoy, supposes the latter has found an abundance of suitable food. But my opinion is, that in the majority of cases it is a matter of sexual importance, and but for this powerful influence which causes them to seek each other and thereby propagate their species, these most beautiful objects of nature would eventually die out.

NOTES ON BOMBYCIDÆ.

BY FREDERICK CLARKSON.

The habits of insects present an attractive and fruitful field of discovery, illustrating in many remarkable ways their peculiar instincts, governed by heredity and more or less conditioned by environment. The power, which we call instinct, controlling the habits of insects has a regularity of action governed by ordinary conditions, but there are frequent manifestations of adaptations to circumstances as conspicuous in the several orders of insects as in the various races of mankind. The extraordinary condition can only be regarded as an obstruction to the usual law that governs instinct and compels the creature to conform to the changed surrroundings. The larvæ of *Bombyx Mori*, if crowded for space, at the time of pupation, will associate to the number of three or four in spinning the one cocoon which covers them. The larvæ of *Samia Cynthia*, under like surroundings, present a similar variation of habit by spinning interior sections, one above the other, in the silk-lined leaf constituting the one envelope, so that outwardly it has the appearance of a long single cocoon. The marked feature of this dual cocoon is that while ordinarily the place of escape for the imago is at the upper end of the cocoon, the inhabitant of the lower section emerges at the lower end of the cocoon, from the lower end of its section. The Cynthia worms occasionally from like necessity will to the number of two spin a cocoon in common, and undergo transformation in the one interior section. I have collected the past season very diminutive cocoons of *P. Cecropia*, and *S. Cynthia*, the former measuring $1\frac{1}{2}$ inches long by $\frac{1}{2}$ inch in diameter; the interior section $\frac{3}{4}$ inch long by $\frac{3}{8}$ inch in diameter; the latter was spun on a leaf $1\frac{1}{2}$ inches long, the cocoon rather less by $\frac{3}{8}$ inch in diameter. The cocoons contained the larva dead and in a dried condition.

From a cocoon of *P. Cecropia* I have obtained a very small male, measuring scarcely four inches in expanse of wing. The kidney-shaped spots on secondaries are reversed from their usual position, the pointed end being directed towards the abdominal or inner margin instead of, as commonly, to the exterior margin. The wavy white line bordered with black, on the exterior margin of the primaries, which is usually more or less pointed into the adjoining lilac, is in this specimen a line corresponding in form with that of the margin of the wing.

DROVES OF LYCÆNID CATERPILLARS HERDED BY ANTS.

BY MRS. WYLLY, OF INDIA.*

The larvæ of *Tarucus theophrastus*, Fabricus, are cultivated and protected by the large common black ants of Indian gardens and houses. The caterpillar, which varies in color from a light pure green to a dark reddish tint [this is a common variation in Lycænid larvæ], is about three-quarters of an inch long, louse-like in shape, and slow in movement, and it feeds on the Zizyphus jujuba, a small thorny bush of the jungles, with an edible astringent yellowish fruit, the "Byr-coolie" of the natives. Some Lycænidæ larvæ have the power of protruding and retracting at will two small fleshy tentacles or

* Reprinted from an article entitled "Butterflies and Ants," by Lionel de Niceville, F.E.S., in the Journal of the Bombay Natural History Society, Vol III. p. 164 (1888).

horns, each tufted with a brush of fine hairs, from the upper surface of the tail segments. Between [on the next segment, anteriorly] these tentacles is a small slit, from which they exude a small drop of a juice of some sort eagerly sought by the ants, and which they can generally procure by stroking the larvæ gently with their antennæ. The ants set up what appears to be merely a temporary nest at the foot of the tree, the better to carry on their operations. Just before the rains set in, about the middle of June, great activity among the inhabitants of a Zizyphus tree may be observed. The ants are busy all day long running along the branches and leaves in search of the larvæ, and without fail an ant will come on one full-grown and meditating on the choice of a snug retreat [in which to turn to a pupa]. A friend or two turning up, the ants set to work to guide and drive their caterpillar in the direction they wish him to go, *i.e.*, down the stem of the tree towards their nest. This is not always an easy business if the prisoner is refractory and would prefer going somewhere else. But as a rule they are docile and easily led. Having kept guard over him until they get him safely into his proper berth in the row, and he has accepted their ultimatum as final, he drops off into a preliminary doze, and undergoes his transformation into a pupa. If you gently scrape away the loose earth piled up at the base of the tree, you will see some hundreds of larvæ and pupæ in all stages of development arranged in a broad even band all around the trunk, and lightly covered with earth. The ants object to their being uncovered, and will immediately set to work to re-cover them, and, if you persist, they will remove all the chrysalids, and bury them lower down. When the butterfly is ready to emerge, which is in about six or seven days, it is tenderly assisted to disengage itself from its shell, and should it be strong and healthy, it is left undisturbed to spread and strengthen its wings and fly away. But if by any mischance it emerges deformed and too crippled to use its wings, a catastrophe occurs. In one case a butterfly had fallen to the ground before its opening wings had dried, and one of the soldier-ants tried to rescue it. He carried it back to the tree with the utmost care, and made several attempts to assist the butterfly to hold on again. Finding his efforts unavailing, he left the cripple for a short time to recover itself. On his return, seeing no improvement, he appeared to lose patience, and, rushing in, bit off both the deformed wings at the base, and carried off the wingless body into the nest below, whether as food for the community, or for what other purpose, I was unable to ascertain. That was the only occasion on which I ever saw any high-handedness on the part of the ants, though their usual ill-temper requires no very close observation to detect. It is a curious sight to watch the fragile and delicate new-born butterflies wandering about, all feeble and helpless, amongst the busy crowd of coarse black ants, and rubbing shoulders in perfect safety with the ordinary fierce, big-headed soldiers; as odd a contrast as the fresh. creamy whiteness of the opening wing, the flash of purple and blue, and the sparkle of green and silver eyes is to the darkness and dinginess of their queer home. For some time after the butterflies have gained strength to fly away they remain hovering over the nest. A larva of a species of Catopsilia [one of the Pierinæ or "Whites"] I threw down as an experiment was immediately set upon and torn to pieces in a second by the ants.

I took a *T. theophrastus* larva from a tree, and introduced it on the pathway of another company of the same species of ants who lived in our verandah, but kept no "farm," and it was odd to see the ants come tumbling out headlong to fight the intruder, and the sudden way they cooled down on investigation of the foe. None attempted to harm him, and he was politely escorted across their boundary, the ants running alongside and feeling him all over with their antennæ. This must have been instinct, as they could have had no former knowledge of him as a "milk-giver." The dead chrysalids in an ants'nest are carefully removed and thrown away outside; the ants also distinguish between the dead and the living.

THE MEDITERRANEAN FLOUR-MOTH.

(*Ephestia kuhniella.* Zeller.)

BY JAMES FLETCHER, OTTAWA.

Probably the most interesting occurrence, from an entomological standpoint, which has taken place during the past year, was the discovery that a mill in the heart of one of our large milling centres had been infested to such an extent by a vast colony of insects as to necessitate the closing of the mill and the cessation of all business. This insect proved to be a new pest to America, but one which, during the last decade, has received much attention in Europe, where it is described as "the scourge of the Mediterranean ports." Immediately upon its recognition the attention of the government was officially drawn to it, and prompt and radical measures were adopted to ensure its extermination. The matter was placed by the Hon. Minister of Agriculture for Ontario in the hands of Dr. P. H. Bryce, the secretary of the Provincial Board of Health, who subsequently published the results of his enquiries and investigations in pamphlet form as Bulletin I. of the Board of Health. This publication is plainly expressed and treats the subject in a practical manner. The importance of the matter is shown and the history of the attack is told. The insect in its various stages is shown by figures, and as much of its life-history in Europe and in this country as was known is detailed. At the time of the first appearance of this new pest in Canada, there was very little available literature upon the subject, the only article of a practical nature being that by Miss Eleanor A. Ormerod, Entomologist of the Royal Agricultural Society of England, in her Twelfth Report.

Since the publication of Dr. Bryce's pamphlet a very complete article giving a summary of the known history of the insect has appeared in the pages of "Insect Life," vol. ii., p. 166.

This article gives much valuable information and describes the larva of another closely allied species, *Ephestia interpunctella*,(=zeæ, Fitch) which might be confounded with the Mediterranean Flour-moth. The beautiful illustrations, Fig. 49 and 50, used herewith, were drawn specially for that article, and have been kindly lent to our society by Prof. Riley. Although this insect has attracted much attention during the last ten or twelve years it does not appear to have been known until the year 1877, when specimens of the moths and larvæ were placed in the hands of Prof. P. C. Zeller, of Grunhof, Germany, by Dr. Kühn, Director of the Agricultural Institute of the University of Halle. They were stated to have been very troublesome in the bolting cloths of a flour mill. Prof. Zeller found that they belonged to a previously undescribed species, and in the *Stettiner Entomologische Zeitung* for 1879, pp. 466–71, he described it under the name *kuhniella*, after the gentleman who sent him the first specimens. In Prof. Riley's article above mentioned the following records of injuries are given.

Preudhomme de Borre, in 1884, gave an account of injury done by this insect in Belgium. In May of the same year Dr. F. Karsch records the appearance of the moth at several places along the Lower Rhine. In the same month M. Maurice Gerard read a note before the Entomological Society of France on the ravages of this moth, which had appeared in enormous numbers in a flour mill at Lodelinsarte, Belgium. In an editorial note in the *Entomologische Nachrichten*, for 1885, mention is made of reports of the appearance of the insect in mills near Bremworde, and in the same publication a review is given of a com-

munication by Prof. P. H. Landois, in which it is stated that this pest is by far the most annoying and dangerous of all the insects affecting wheat or flour. In 1887 five articles appeared in English magazines, giving accounts of the appearance and habits of the insect as observed in English mills and warehouses. The first of these was by Mr. W. Thompson, of Stoney Stratford, who reported the first appearance of the pest in England. The most important English article, however, is by Miss Ormerod, who summarises the known facts concerning injuries by this insect, and gives details of a new attack which had been brought to her notice in the north of England during 1888. The state of affairs in the infested mill, as described by Miss Ormerod, was practically the same as was found to be the case in our Canadian mill. Her correspondent writes: "I have got quite a plague of moths in the mill, some of which, and worms, I send you; they get into the spouts and machinery and do no end of mischief, both by destroying the silks and stopping the flow of flour, etc., in the spouts by spinning their webs and hanging there. The mill is in constant work, and I should have thought this would have prevented them from lodging, but it does not seem to affect them at all."

The following statement by the manager of the mill which was so seriously affected in Canada is taken from Dr. Bryce's pamphlet, and is virtually a resumé of the different points as they were brought to my notice during the investigation.

"The first appearance of the *Ephestia kuhniella*, or flour moth, that we remember seeing was during the month of March last, 1889. The moth was seen flying about near a steam pipe in the basement of the mill. Little attention was paid to it, as from appearance it did not indicate any danger. In April there was an appearance of a few moths on the different floors of the mill, even at the top, but still there was nothing suspicious. In the month of May we were troubled with a few worms in some of our goods, and in June more of them appeared. In July they increased rapidly, and then we began to suspect they were from the fly which we had seen in the mill during the previous months and which was steadily increasing in numbers. About the middle of July we shut down for a day or so; took the clothing from our bolting reels and cleaned it and washed the inside thoroughly with soft lye soap and lime. We did the same with the elevators. When we started up again every corner and part of the mill had been thoroughly cleaned, as we supposed, and we commenced to work again, but after about four days we found our bolting reels, elevators, etc, worse than before. They were literally swarming with webs, moths and worms, even inside the dark chambers of the reels. We shut down again and made a more thorough cleaning by washing, etc. While this was going on we found there was no use to try and clear ourselves of the pest as the mill walls, ceilings, cracks, crevices and every machine was completely infested with moths, cocoons and caterpillars, and there was no use going on. It then occurred to us that a plague like one of the plagues of Egypt was upon us. The moth was different to any of which we had had any knowledge or experience, and we decided to apply to the Dominion Government for relief and assistance. We addressed the government entomologist, Mr. Fletcher, and sent him samples of the moth, caterpillars, webs, etc., and received a prompt answer which considerably alarmed us. This letter was followed by others almost daily from Mr Fletcher and a visit from Prof. Saunders on the 17th of August. Mr. Fletcher visited us also on the 27th of August; but in the meantime Mr. Blue, the Assistant Minister of Agriculture for Ontario, visited us and took in the whole situation. It was explained to Mr. Blue that the Dominion Government had been appealed to by us, through Mr. Fletcher, the

Dominion Government entomologist, for assistance and remuneration for the loss we had sustained. Mr. Blue, considering it to be a matter with which the Local Government had to do, brought Dr. Bryce, Secretary of the Provincial Board of Health, and submitted the matter to the Government for action. Afterwards Dr. Bryce and Mr. Fletcher came together, and finally the whole matter was left in charge of Dr. Bryce and the Provincial Board of Health.

"In the meantime we took down our machinery and subjected it to steaming. Every part was thoroughly steamed. The mill was swept down and subjected to sulphur fumes. The walls, ceilings, etc., were cleaned, and elevator spouts and loose wooden work burnt up. Paper bags and hundreds of dollars worth of goods were burnt in the furnace, while the other bags, elevator belts and cups were boiled for hours in a cauldron of water. The machines and all parts that were not destroyed were then burnt by means of a kerosene torch, which flamed and smoked through and around every part of them until we considered we had everything clean and ready for putting together again.

"But on the 19th of September the Local Government passed an Order in Council compelling us to take more stringent steps, or rather ordering the Provincial Board of Health to take immediate steps for the suppression of the pest. This Act was approved of by His Honour, the Lieutenant-Governor, who signed the Order in Council, and on the 20th September we received an order from Dr. Bryce which stated that before placing our machinery in position we should subject it to a thorough disinfecting process in a strong room so arranged that steam under pressure might be drawn or driven into it.

"In compliance with this order we at once constructed a tight steam box six feet wide, six feet high and 12 feet long, and attached a steam pipe to it from the boiler. In this box we put every machine, and even our mill stones and iron rollers. This process was very expensive and took up considerable time, as we were over a week at the process and were delayed in the placing of our machinery. The Board of Health visited us in a body during the time this process was going on and pronounced it a success. This was all done not only in our own interests, but in the interests of the public health and commerce of the country. Having now got to the position which enables us to go to work again after two months loss of time, and the loss of machinery, fixtures, stock and expense, we have arranged for remedial measures to prevent the reappearance or destruction of the pest should we ever be again attacked. We have erected a steam standpipe with hose or other connection on each flat of the mill building. By shutting up all doors and windows of each flat and turning on the steam simultaneously to each floor the whole building can be filled with hot live steam sufficient to kill anything. This will rust all bright parts of the machiney, but to remedy this we intend using oil on them, should we ever be under the necessity of resorting to the measure.

Another purpose of this steam stand-pipe will be, in cold weather, to let on sufficient steam to moisten every thing and part of the building at night and let the frost penetrate so as to kill any eggs or insects that may have become lodged in unseen parts.

By these measures, with plenty of light, thorough cleanliness, a cold mill, and caution in taking in stock and old bags, we hope to keep free of a pest which has given us so much trouble and loss.

The above accounts serve to show what a serious matter was the introduction of this insect into Canada. There is no class of foods more important to the masses than those which we derive from cereal crops, any cause therefore which brought about their destruction was an enemy menacing the whole community. By the

thorough treatment which was applied, it is probable that this attack has been put an end to, and every one should feel under a deep obligation to the Hon. Charles Drury for enabling Dr. Bryce to do his work so thoroughly.

An account of the habits and life-history of this insect, which has suddenly become so celebrated, will probably be of interest and will enable our readers to recognise it in its different stages should it make its appearance at any future time.

The perfect moth is shown at Fig. 49, *c* and *f* slightly enlarged, the actual length of average specimens is shown by the hair-lines at the side of the figures.

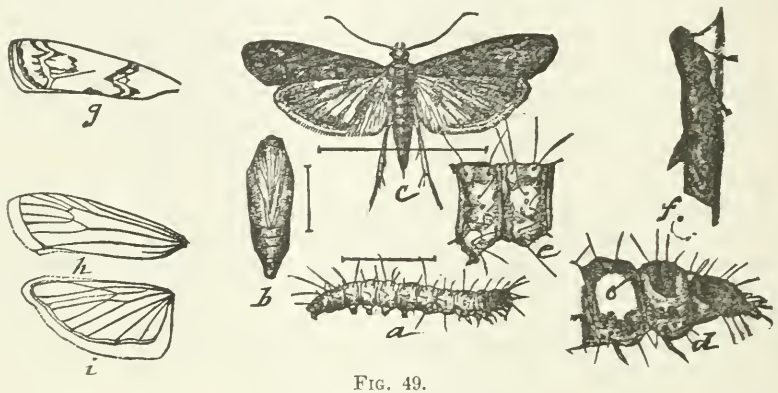

Fig. 49.

The moth when the wings are spread measures about $\frac{7}{8}$ of an inch from tip to tip of the wings. The colour is leaden-gray more or less sprinkled with black scales and the forewings are crossed by transverse angled waved lines as shown in the figure. When the specimens are fresh the colours are much brighter than they are a few days after they have been killed. The ground-colour of some specimens which were left for ten days in a cyanide killing bottle changed to a yellowish brown tinge. I mention this point from the fact that in the article in *Insect Life* it is stated that in the typical specimens raised by Zeller, the ground colour is pure yellow or nearly brownish. I have no doubt of the identification of our Canadian insects as the true *E. kuhniella*, Zeller, for specimens were sent to Prof. C. H. Fernald for confirmation, and I have lately received from Mr. O. E. Janson specimens from Germany, which had been found feeding on flour, and of which he writes: "I have compared these and find they agree precisely with the type specimens in the Zeller collection now in the British Museum, and also with some specimens which I have reared from larvæ found in warehoused flour in the east end of London, you may therefore have no doubt as to the identity of these examples. Some specimens have the forewings of a darker shade with the blackish marking a little more pronounced than in those sent, others are rather paler with the markings less distinct, otherwise I have seen very little variation in the many specimens which have come under my notice."

The moths are rather sluggish in the day time but are active at night. When at rest they are difficult to detect the wings are drawn in close to the body after the manner of the *Crambidæ* or grass-moths, which belong to the same natural order, and the antennæ are folded back and crossed over the thorax, sometimes the attitude shown at *f* is asumed, but not so commonly as in the case of the Meal Moth (*Asopia farinalis, L.*) When fresh from the chrysalis, the females will remain for hours in this position, with the abdomen protruding between the wings, but more erect than in the figure, in fact at right angles with the line of

the body and with the ovipositor extended to its fullest length. Pairing generally takes place and eggs are laid within 24 hours. An anatomical examination (by Prof. H. Landois) showed the number of eggs in a single female to be 678. Of four separate females which I have enclosed immediately after pairing, the number of eggs laid has in each instance been a little under 300; but this does not necessarily disprove the above statement.

The eggs are beautiful objects; under the microscope they are about $\frac{1}{40}$ of an inch in length, about half as wide as long, of an oblong form with rounded ends and having the surface marked with rather large star-shaped prominences, the radiating lines or wrinkles of which are waved. The eggs are greenish white when first laid, $\frac{1}{40}$ of an inch in length, oblong or slightly kidney shaped with rounded ends, and are deposited singly or sometimes in strings of from three to fourteen, connected by their ends. Mr. Sidney Klein found that "the eggs appeared to be laid on the top of the sacks, and hatched within a few days. The larvæ burrowed through the sacking, spinning long galleries through the flour, generally not penetrating to a greater depth than three inches." (*Insect Life*, vol. ii, p. 170). This may be the case or the eggs may be pushed in between the meshes or into crevices of woodwork where flour has lodged; the ovipositor of the female is so long and slender that this would be quite possible. In the breeding jars the eggs were laid indiscriminately all over the surface of the glass and grain placed in the bottom; but in one jar, the neck of which was closed with a plug of cotton wool, a large mass of eggs was found, pushed into the cotton, over a quarter of an inch from the surface, where they had been laid by the females. Three lots of eggs laid in October and November and kept inside my study hatched in 19 days, this period would probably be rather shorter in summer-time.

The caterpillars are very slender active little creatures, rather under $\frac{1}{16}$ of an inch in length when first hatched, of a pinkish-brown colour with dark heads, and they are covered with long slender hairs. After leaving the egg-shell which they seldom eat, as many caterpillars do, they wander about quickly looking for food. From the very first they have the habit, which when they are larger constitutes one of their most injurious characters, of spinning silken threads wherever they go. They not only eat a certain quantity of flour but render a much larger quantity useless by the copious silken threads and tunnels which they spin through their food at all stages of their larval growth. A tin box 3½ inches high by 2 inches in diameter, filled with Indian corn meal as food for about 30 nearly full-grown larvæ, in about a month had the contents so permeated and matted with their webs that the whole of the meal could be raised in one thick felted mass. When the caterpillars get into the complicated machinery, which is used for bolting and cleaning flour, their chief injury arises from these webs which they spin all over the surfaces, but also from their eating holes into the gauze through which the flour is sifted. When full-grown, if possible, they leave their food and crawl to some corner where they spin a close cocoon of silk into which they also weave particles of flour or dust. Some of the caterpillars which I have had in my study since September have remained as caterpillars in a semi-torpid state for four months; but most of them have changed to chrysalises and moths. From the fact, however, that some remained torpid in my room which was kept constantly at about 65 degrees of heat, I believe that under ordinary circumstances many would hibernate as caterpillars. Miss Ormerod thinks that where there is warmth as in a mill that there is no definite succession of broods; but that the pest is present constantly in all stages. In Rep. xii, p. 69, she writes: "The attack may be considered as going on constantly where temperature is suitable, for we have notes of appearance of the moths in May, June, July, November and December; and intermediate observations of larval or pupal presence point to

this, which, when once established, is indeed a mill or flour *scourge*, as being an all-the-year-round pest." The full-grown caterpillar is a little more than half an inch in length, of a greenish white or sometimes of a decidedly pinkish tinge. The head is reddish-brown and bears a few long bristles. The thoracic and anal shields as well as the thoracic feet are honey yellow. The spiracles are yellowish and inconspicuous. Along the sides are four series of dark piliferous tubercles. (i.) Sub-dorsal, consisting of an anterior and posterior tubercle on each segment from 5 to 12. (ii.) Lateral. (iii.) Sub-stigmatal and (iv) supra-ventral. The sub-stigmatal series is double throughout, *i.e.*, each tubercle bears two bristles, separated a little at the base. On segments 3, 4, and 13, the sub-dorsal and lateral series are represented by a single large double tubercle instead of two separate tubercles as on the other segments. These three tubercles are the most conspicuous marks on the larvæ. The lateral series consists of double tubercles on segments 2, 3, 4, and 13, and of two bristles on the remaining segments, one of these, above and slightly anterior to the spiracle, is very small. The tubercles are small but distinct, the dark colouring is in the form of a cloud round the bases of the bristles. which in the lateral series on segments 3 and 12 takes the form of a black ring round the white base of the larger bristle and the smaller bristle is placed on this ring. On the anterior section of segment 13 the two sub-dorsal rows of tubercles are joined by a dark cloud and there is a large double conspicuous tubercle in the lateral area.

The chrysalis is of the shape shown at figure *b*, $\frac{3}{8}$ of an inch in length of a honey yellow colour. This stage lasts about three weeks in September.

Prof. Riley has figured for comparison with *E. kühniella* the native species of the same genus *E. interpunctella*, shown at Fig. 50, with its larvæ and chrysalis.

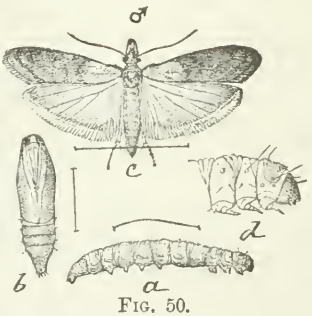

Fig. 50.

This species was found associated with *E. kühneilla* in the infested mill. The moths are quite different in appearance, *interpunctella* having the bases of the wings of a yellowish drab tinge and the tips reddish mottled with purple.

"The early states are quite similar in appearance, but the larvæ may be distinguished by the following characters: the larvæ of *kühniella* are more slender and of a more uniform diameter than those of the other species. The abdominal legs are longer, cylindrical, with a circular fringe of hooklets at the crown. In *interpunctella* the legs are short, conical, with the fringe of hooklets at the crown oval. All piliferous warts in *kühniella*, most of which are rather minute, are still rather prominent, readily observed, and of a black or brown colour. Those most conspicuous are the lateral ones, in front of the first spiracle; the sub-dorsal one each side of the meso-thorax, almost completely encircled by a narrow black ring interrupted only at its upper margin, Fig. 50, *d*. In *interpunctella* all the warts, while present, are concolourous with the rest of the body, and can be dis-

tinguished only with great difficulty. The surface of the body of *kühniella* is almost perfectly smooth, while that of *interpunctella* is somewhat granulate." *Insect Life, V. ii., p. 171.*

E. interpunctella appears to be a much more general feeder than *kühniella* for while I only have actual record of the latter feeding on the following substances, preparations of maize, wheat, barley, and rice, Prof. Riley gives the following list for *interpunctella*, wheat, meal, corn, dandelion roots, chickasaw plums, sugar, dry opuntia, old books, Pecan nuts, cinnamon bark and English walnuts. Prof. Cook also mentions it as a pest in bee-hives, and I have myself bred it in numbers from European almonds, of which the larvæ had eaten both the soft shells and the kernels.

DR. CHRISTIAN ZIMMERMANN.

BY H. A. HAGEN, CAMBRIDGE, MASS.

There exists no biology nor necrology of this excellent entomologist as far as known to me, though he lived for thirty-nine years in the United States. I am much indebted to Dr. George C. Horn for Zimmermann's note book, which, with his library, came into the hands of the late Dr. J. L. Leconte.

Only a very short abstract of the contents, which are written wholly in German, can be given. The entries begin with Zimmermann's earliest boyhood and end in 1843, followed by a few pages for 1865. The narrow pages contain only the substances of events in short phrases, often very cutting both for Europe and for America. If the whole could be published it would give a very interesting picture of the life of an excellent naturalist, always kept down and hindered by want and ill-luck but always ready to "begin again." It is sad that such a life akin to the remarkable histories of former ages, published by the masterhand of G. Freytag, should have been possible in the nineteenth century—a continuous struggle of a noble soul with continuous misfortune.

Christian Zimmermann was born in Quedlinburg, Prussia, September 6th, 1800. His father and three generations before him were carpenters as the name indicates; all were born and died in Quedlinburg. Christian entered the gymnasium in 1811 and graduated in 1821. The note book May 26th, 1814, says: "I am to-day 5,000 days old." (He always counts his life both in Europe and here by the 1,000 days.) The collection of beetles begins and the study of music. His talent for music must have been obvious, as one year later he played the organ for the church service and studied thorough bass. When he graduated he writes:—"Up to this time my money was made by keeping score for target shooting, teaching children, giving music lessons, organ playing, copying music, furnishing music at funerals, stuffing birds."

His parents, who were poor, proposed that he should choose a profession, but determined to study he went to Halle, where he stayed as student from 1821 to 1825. He passed his examination after having attended the lectures in theology, philology and philosophy, but his entomological studies were never neglected.

In 1827 he published his first music, a Polonaise. When he left Halle in 1828 he was already acquainted with a large number of eminent zoologists. He went to Berlin and writes:—"Great expectations, small success, a load of cares, experience of the world." He worked with Professor Klug in the museum and gave Latin lessons to barbers' apprentices. March, 1829, working up the genus *Amara*, of which some sheets were printed. 1830. Very bad times begin; want of money. 1831. Monograph of the genus *Zabrus* finished; printed in June.

During this time he had become acquainted with many prominent entomologists and with a large number of students, who later became famous, but the constant want of means was so depressing that he decided to try his fortune as a collector in Mexico. He sold his collection of 2,400 species of beetles and his books. To enable him to fulfil his intentions twenty-four naturalists of prominence from Germany, England and Russia subscribed

six hundred dollars and a number of friends six hundred and eighty dollars to pay his debts. This was all repaid with interest by Zimmermann as soon as he had made money here, as a page in his note book states. He left Hamburg August 5th, 1832, as steerage passenger for Philadelphia. He began directly to collect and to study the English language. His collection grew rapidly, but in a few months he saw that it was impossible to work in expensive America for cheap Europe without running in debt. So he decided to leave Philadelphia and to try his luck as a teacher in South Carolina. He made the trip according to the custom of German students on foot, a knapsack on his shoulder and a few dollars in his pocket. This journey of 713 miles, in the midst of a severe winter and attended with much hardship which proves his excellent health and strength, was made in fifty days with $27 in cash, $6 credit, three maps, one book and a pocket knife. The visit to Dr. Melsheimer on this trip has been published before by me. The detailed report of excursion given by Zimmermann to Professor Burmeister is very interesting, but has never been printed. Zimmermann had no idea that he was here considered simply a tramp, which explains easily and rightly most of his complaints.

In Georgetown, S.C., he tuned pianos and gave music lessons till he was engaged in the South Carolina Female Institute at Berhamville to teach music and drawing. This happy change in his circumstances allowed him to pay directly the debts made in Europe with five per cent. interest. He collected largely, sometimes quoting the number collected at the end of the month or the year as "11,508 specimens have been collected," besides mentioning any remarkable forms. He made many excursions, visited Cambridge (where he saw Harris), Niagara, Albany, the Catskills, New York and its surroundings. He made the acquaintance of every naturalist of eminence. He sent to Europe many insects and received many from there, together with the newest publications. His correspondence was apparently a large one.

After a few years his situation in the school where he was engaged was given up; it had become unpleasant some time before. He possessed now an excellent collection, very comfortable furniture and three thousand dollars, and decided to buy a little farm to be used as a nursery and for raising silk-worms. In 1839 he made, as he states, fourteen "farm-reisen" in Pennsylvania, Maryland, and other states, partly with Zeigler and Morris. His project proved to be a failure, and he decided to return to Europe and to send his property to New York. After a short visit to Harris, he went to New York, to find that the vessel, with all his property, was lost in a fearful storm. His note-book says:—"Sept. 10. I am notified of the loss of my collection and property." "Sept. 16, Beginning of a new collection. The voyage is given up." "Sept. 25. Invitation of Harris to come to Cambridge," where he stayed until November 12th. On Nov. 7th new insect boxes were bought of the box-maker, Newell, in Cambridge. He made many excursions with Harris, whose family very well remember the German naturalist.

The next year he lived in Baltimore, occupied with entomological systems and excursions with Mr. Morris, and decided to return to South Carolina. Feb. 27 records a "letter to Hannah, with an offer of marriage." March 21. "Hannah answers yes." April 3. "I find *Horia sanguinipennis*." Apr. 14. "I find *Trichius maculosus*."

He had made the acquaintance of Mrs. Hannah Green, afterwards his wife, seven years ago in Georgetown, S.C. We find in his note book: "Evening with Hannah, drawings on the wall; sweet home and picture; quarrels plenty." Monday, June 21. "Arrival in Rockingham, N. Carolina." June 22. "I reach the town in the morning, visit Hannah at noon, and am married in the evening."

"Hannah begins her school, July 16, with 16 pupils, and 7 pupils of mine in music and drawing."

Sept. 17. "Dispute took place with Hannah about American culture and the fight that lately happened in Washington among the members of Congress"

It very soon became apparent that it was impossible to make a comfortable living in North Carolina, and they decided to return to Columbia, South Carolina. Here they built a school-house, forty feet by sixteen, which was inaugurated December 18th, 1843. The expense was, for the building, $417; for Loring's globes, $33. Income during the year, $1,521; expenses, $1,277.

This is the last entry in the diary, and I know nothing more of his life except what is told in some letters to Thaddeus W. Harris. Some extracts follow :—

"1865. January 1. I possess :

"$570.00 in Confederate money.
"$200.00 in " bonds.
"$900 in certificates.
"$200.00 in provision store shares.
"$13.00 in bank notes.
"$114.90 in silver.

"Feb. 10. The Yankees are in Barnwell Co. To-day's prices : a load of oak wood, $140 ; a barrel of flour, $550.00 ; a pound of brown sugar, $12.00 ; a bushel of corn, $35.00.

"Feb. 17. The Yankees are here, 75,000 strong. This is the last day of Columbia. They at once entered the houses, got drunk, and set fire to everything. I began to move everything that could be moved into the garden ; but they broke open the trunks and boxes with their swords, and followed this up with a regular and general plunder.

"Feb. 22. The army has left. All quiet. My collection and books brought back in the house. Expenses for these days :—1 bushel meal, $40.00 ; 13 lbs. beef, $22.00 ; molasses, $6.00.

"July 1. We still possess —

$1,100.00	Confederate States bonds, worth	$ 0 00
$915.00	Confederate treasury notes "	0 00
$13.00	South Carolina bank bills "	2 00
$3.00	South Carolina state bills "	2 00
Silver money		74 00
Gold		2 50
Copper		0 05

"We must begin again at the beginning."

This is the closing sentence. These few simple words, without any moan over the loss of his all, are not a little touching—all the more so because the pathos is unintentional—the pathos of facts, not of words. They call to mind his former record of the loss of everything by shipwreck on the 10th September, 1839, followed by the entry on Sept. 16th, "Beginning of a new collection."

Zimmerman died in December, 1867. He left no children.

His interest in science was always kept up. Nearly every month the number of insects collected is reported, sometimes amounting to 3,725, and during the year to 11,500. In November, 1842, he sent fifty dollars to T. W. Harris to buy three Goliaths. He constantly bought books both in Europe and America, and his library was valuable. It was bought by the Museum of Harvard College in Cambridge, excepting some volumes which were retained for his own use by Dr. J. L. Leconte, at whose instance the purchase was made.

His collection is also in the museum, having been bought first by Dr. Lewis, of Philadelphia, and from him by the late R. Crotch, who sold it to the museum. A great part is in Le Conte's collection, and can be recognised at once by the numbers on the pins, in Zimmerman's handwriting.

He was an unwearying worker. In 1842 he wrote to Harris that he was occupied with a systematic arrangement of the Lamellicorns, and wanted Echiurus and Goliath for study. In April, 1844, he writes again to Harris :—"I have almost finished my chapter on Lamellicorns.

BOOK NOTICE.

Insects Injurious to Fruits; by William Saunders. Second edition. Philadelphia J. B. Lippincott Company, 1 vol., 8vo, pp. 436.

It is with very great pleasure that we announce the publication of the second edition of this valuable and important work. That a new issue should be called for is a most satisfactory proof of the excellence and permanent usefulness of the book, and establishes the fact that Prof. Saunders has provided the fruit growers of North America with a standard manual upon the insect enemies that they have to contend with.

Six years have gone by since the issue of the first edition, and during that time great and steadily increasing attention has been given to the study of economic entomology, with the result that many new methods have been discovered for successfully combatting the ravages of noxious insects. The most important and useful of these the author has now embodied in his book, and has done so with very little change in the text of the work. A superficial reader would hardly notice the alterations, but we find that many have been made, and that they bring down the information given to the knowledge of the present day. As an example, we may mention the insertion among the remedies for the codling worm, of the apple and the plum curculio, the recently discovered method of spraying with a mixture of Paris green and water, which has proved so eminently successful.

For the information of those of our readers who are not already familiar with the work, we may mention that the insects treated of are grouped under the name of the particular fruit that they attack, and are arranged in order according as they affect the root, trunk, branches, leaves and fruit. An illustrated life history is given of each, followed by an account of the most useful remedies that may be employed and of any parasitic insects that assist in keeping the pest in check. Twenty of the most important fruits are dealt with, and two hundred and sixty-six noxious insects and a large number of beneficial ones are more or less fully described. The book is beautifully printed on fine paper, and illustrated with four hundred and forty admirable wood cuts.

While this work is simply indispensable to the intelligent horticulturist, it is also of great value to the practical entomologist and a most useful book to place in the hands of beginners. The young collector will find in its pages figures and descriptions of most of the insects he meets with, and the more advanced student cannot fail to learn from it much that would otherwise escape his observation.

PUBLIC ACCOUNTS

OF THE

PROVINCE OF ONTARIO

FOR THE

YEAR ENDED 31st DECEMBER,

1889.

PRINTED BY ORDER OF THE LEGISLATIVE ASSEMBLY.

TORONTO:
PRINTED BY WARWICK & SONS, 68 AND 70 FRONT STREET WEST,
1890.

To His Honour the Honourable Sir Alexander Campbell, K.C.M.G.

Lieutenant-Governor of Ontario.

MAY IT PLEASE YOUR HONOUR:

The undersigned has the honour to present to your Honour the PUBLIC ACCOUNTS of the Province of Ontario for the year ended 31st December, 1889.

Respectfully submitted,

A. M. ROSS,
Treasurer.

TREASURY DEPARTMENT, ONTARIO,
TORONTO, 8th February, 1890.

PROVINCIAL AUDITOR'S REPORT.

PROVINCIAL AUDITOR'S OFFICE,
TORONTO, February 3rd, 1890.

To Hon, A. M. Ross,
Treasurer of Ontario :

I have the honour to present to you the Public Accounts for the year 1889.

Attention is directed to the correction in Statement No. 10, of the amount of stationery supplies on hand in the Queen's Printer's Office, on 31st December, 1888. On taking stock it was found that the stock on hand at that date amounted to $29,575.67. The difference between these figures and the figures given last year as representing stock on hand, is to be accounted for principally by the addition of a percentage by the Queen's Printer to the cost of all purchases made since 1868. In future stock taking will take place annually, and instructions have been issued to the Queen's Printer to charge all distributions to the Departments at cost price.

For the information of the Legislative Assembly, I beg to report with reference to over-expenditures of appropriations as granted by the Supply Bill, as follows :—

Payments made under authority of 49 Victoria, Chapter 4, Section 20 :—

Public Buildings—Osgoode Hall..... $1,388 96

PUBLIC WORKS DEPARTMENT,
TORONTO, May 2nd, 1889,

The undersigned respectfully reports to His Honour the Lieutenant-Governor in Council :—

That in preparing the Estimates for the year 1889, for Capital Account, General Repairs for Osgoode Hall, an account then due to the Messrs. King & Yorston, for carpentry and joinery and furniture and furnishings,

amounting to $1,388.96 was overlooked, and funds were not provided for its payment.

The undersigned therefore recommends that authority be given under the Act, R. S. O., 1887, Cap. 21, Sec. 20, for the payment of the amount specified, to the persons named herein, as per the account hereto attached.

(Sd.) C. F. FRASER,
Commissioner.

PROVINCIAL AUDITOR'S OFFICE,
TORONTO, May 7th, 1889.

SIR,—I beg to enclose herewith a recommendation by the Minister of Public Works, for the payment of an account amounting to $1,388.96, and chargeable to Osgoode Hall "Capital Account," under authority of R. S. O., Cap. 21, Sec. 20.

Your obedient servant,

(Sd.) C. H. SPROULE,
Provincial Auditor.

The CLERK,
Treasury Board.

MINUTE OF THE TREASURY BOARD ON MATTERS REFERRED TO THEM FOR CONSIDERATION.

Upon consideration of a report of the Honourable the Commissioner of Public Works, Dated the 2nd day of May, A.D. 1889, the Treasury Board doth hereby approve of the payment of the account of Messrs. King & Yorston, amounting to the sum of $1,388.96, for carpenters and joiners work, furniture and furnishings for Osgoode Hall, said account having been overlooked, and no provision made for the payment of the same in this year's Estimates, and recommend that a cheque for the said sum be issued by the Honourable the Treasurer, in favor of the said Messrs. King & Yorston accordingly, same to be charged to Osgoode Hall "Capital Account."

Certified,

J. LONSDALE CAPREOL,
Clerk, Treasury Board.

C. H. SPROULE, ESQ.,
Provincial Auditor.

Public Buildings,—London Asylum $1,580 42

PUBLIC WORKS DEPARTMENT,
TORONTO, May 21st, 1889.

The undersigned, respectfully reports to His Honour, the Lieutenant-Governor in Council.

(1) That the appropriation for "Capital Account" of the London Asylum for Lunatics is exhausted, and that an account of Messrs. Smith Brothers, for reconstruction of Asylum buildings has only been paid in part, leaving a balance still due them thereon, as per approved account, in the hands of the Honourable the Provincial Tresurer of the sum of $214.92.

(2) That four pay sheets of men employed on the sewage disposal works at the London Asylum are unpaid, or unprovided for, amounting in the aggregrate to the sum of $1,365 50.

The undersigned therefore recommends that authority be given under the Act R. S. O., 1887, Cap. 21, Sec. 20, for cheques to issue for the payment of the sum above named, viz. :

In favor of Smith Brothers for.....	$214 92
" W. Edwards, Secretary Public Works, to meet Pay Sheets	1,365 50
Or a total of	$1,580 42

(Sd.) C. F. FRASER,
Commissioner.

PROVINCIAL AUDITOR'S OFFICE,
TORONTO, May 28th, 1889.

SIR,—I beg to enclose herewith an application from Department of Public Works, for payment of accounts, amounting to $1,580.42, *re* London Asylum "Capital Account," under authority of R. S. O., Cap. 21, Sec. 20.

Your obedient servant,

(Sd.) C. H. SPROULE,
Provincial Auditor.

The CLERK.
Treasury Board.

MINUTE OF THE TREASURY BOARD ON MATTERS REFERRED TO THEM FOR CONSIDERATION.

Upon consideration of a report of the Honourable the Commissioner of Public Works, dated the 21st day of May, A.D. 1889, the Treasury Board doth hereby under the provisions of Sec. 20. Cap. 21, R. S. O., 1887, approve of the payment of the following sums chargeable against the appropriation for London Asylum "Capital Account," which has become exhausted, namely :—

To Messrs. Smith Brothers, balance of account for reconstruction Asylum Buildings.....	$214 92
W. Edwards, Secretary Department of Public Works, to meet four pay sheets, re sewage disposal works at Asylum	1,365 50

And that cheques for the said sums be issued by the Honourable the Treasurer accordingly.

(Certified)

J. L. CAPREOL,
Clerk, Treasury Board.

C. H. SPROULE, ESQ.,
Provincial Auditor.

Public Buildings—London Asylum..... $2,824 83

PUBLIC WORKS DEPARTMENT,
TORONTO, July 3rd, 1889.

The undersigned respectfully reports to His Honour the Lieutenant Governor in Council.

That as previously reported the "Capital Account" of the London Asylum for the Insane is exhausted, and that approved accounts remain to be paid as per annexed schedule, to the total sum of, $2,824.83.

The undersigned therefore recommends that authority be given under the Act R. S. O., 1887, Cap. 21, Sec. 20, for cheques to issue to the following persons :—

William Stevely, London	$ 13 50
Cryer & Co. "	205 93
J. Morrison, Toronto	55 92
F. W. Farquhar, Toronto	520 00
W. Edwards, Secretary, Department Public Works, to meet Pay Lists, etc.	2,029 48
Total	$2,824 83

(Sd.) C. F. FRASER,
Commissioner.

Provincial Auditor's Office,
Toronto, July 9th, 1889.

Sir,—I beg to enclose herewith an application from the "Public Works Department" for payment under authority of R. S. O., 1887, Sec. 20, Chap. 21 of accounts amounting to $2,824.83, *re* Asylum for Insane, London—"Capital Account."

Your obedient servant.

(Sd.) C. H. SPROULE,
Provincial Auditor.

The Clerk.
Treasury Board.

Minute of the Treasury Board on Matters Referred to them for Consideration.

Upon consideration of a report of the Honorable the Commissioner of Public Works, dated the 3rd day of July, A.D. 1889, the Treasury Board doth hereby under the provisions of R. S. O., 1887, Sec. 20, Cap. 21, approve of the payment of $2,824 83 to meet the following accounts,

chargeable against the "Capital Account" of the Asylum for the Insane, London, which has become exhausted, namely :—

W. Stevely, London	$ 13 50
Cryer & Co., "	205 93
J. Morrison, Toronto	55 92
F. W. Farquhar, London	520 00
W. Edwards, Secretary, Public Works Department, to meet Pay Lists, etc.	2,029 48
Total	$2,824 83

The Board recommends that a warrant for the said sum of $2,824 83 be issned in favor of the Honourable the Provincial Treasurer accordingly.

(Certified)

J. L. CAPREOL,
Clerk, Treasury Board.

C. H. Sproule, Esq.,
Provincial Auditor.

Public Buildings, London Asylum.....$1,454.70.

Public Works Department.
Toronto, July 18th, 1889.

The undersigned respectfully recommends to His Honour the Lieutenant Governor in Council,

That as previously reported, the appropriation for "Capital Account" of the London Asylum for the Insane, is exhausted, and that further approved accounts remain unpaid as per annexed schedule : for Sewage disposal, $1,289.27 ; New Engine House $165.43, or a total of fourteen hundred and fifty-four dollars and seventy cents. ($1,454.70.)

The undersigned therefore recommends that authority be given under the Act R.S.O., 1887, Cap 21, Sec. 20, for cheques to issue in favour of the parties, and for the sums named in said hereto attached schedule.

(Sd.) C. F. FRASER,
Commissioner.

PROVINCIAL AUDITOR'S OFFICE,
TORONTO, July 24th, 1889.

SIR,—I beg to enclose herewith an application from the Public Works Department, for the payment of accounts amounting to $1,454.70, under authority of the Act R.S.O., 1887, Cap. 21, Sec. 20., *re* Asylum for Insane, London—Capital Account.

Your obedient servant,

(Sd.) C. H. SPROULE,
Provincial Auditor,

The CLERK,
Treasury Board.

MINUTE OF THE TREASURY BOARD ON MATTERS REFERRED TO THEM FOR CONSIDERATION.

Upon consideration of a report of the Honourable the Commissioner of Public Works, dated the 18th day of July, A.D. 1889, the Treasury Board doth hereby under the provisions of R.S.O., 1887, Cap. 21, Sec. 20, authorize the issue of a warrant for the sum of $1,454.70 in favour of the Honourable the Provincial Treasurer, to meet certain unpaid accounts in connection with the London Asylum, the appropriation for said Institution "Capital Account" having become exhausted, namely :—

For disposal of Sewage	$1,289 27
New Engine House	165 43
Total.....	$1,454 70

(Certified) J. L. CAPREOL,
Clerk, Treasury Board.

C. H. SPROULE, ESQ.,
Provincial Auditor.

Education—Departmental Examinations	.....	$3,547 96
do Superannuated Teachers	.....	1,065 00

Educational Department,

Toronto, 10th September, 1889.

The undersigned respectfully reports to His Honour the Lieutenant Governor in Council:—

That the sum appropriated for sub-services of "Departmental Examinations" and "Superannuated Teachers" is insufficient for the current year, and as it is necessary that the amounts specified in accompanying requisitions should be paid this year, the undersigned respectfully recommends, that authority be given under the Act 49 Vic., Cap. 4, Sec. 20, for appropriating a further sum of $3,547,96 for Departmental "Examinations" and $1,065.00 for "Superannuated Teachers," to meet this deficiency.

(Signed.) G. W. ROSS,
Minister of Education.

Provincial Auditors' Office,

Toronto, September 13th, 1889.

Sir,—I beg to enclose herewith an application from Education Department for payment of accounts, under authority of 49 Vic., Cap. 4, Sec. 20, as follows:

Departmental Examinations	$3,547 96
Superannuated Teachers	1,065 00
Total	4,612 96

Your obedient servant,

(Sd) C. H. SPROULE,
Provincial Auditor.

The Clerk,
Treasury Board.

MINUTE OF THE TREASURY BOARD ON MATTERS REFERRED TO THEM FOR CONSIDERATION.

Upon consideration of a report of the Honourable the Minister of Education, dated the 10th day of September, A.D. 1889, the Treasury Board doth hereby, under the authority of R. S. O., 1887, Cap. 21, Sec. 20 recommend that warrants be issued in favour of the Honourable the Provincial Treasurer, for the following amounts:—

Departmental Examinations	$3,547 96
Superannuated Teachers	1,065 00

The amounts voted for said sub-services, for the current year, having become exhausted.

Certified,

J. L. CAPREOL,
Clerk Treasury Board.

C. H. SPROULE, ESQ.
Provincial Auditor.

Repairs and Maintenance:	
Main Building, Parliament Buildings	$1,255 93
Public Buildings:	
London Asylum	2,809 86

PUBLIC WORKS DEPARTMENT,

TORONTO, October 11th, 1889.

The undersigned respectfully reports to his Honour the Lieutenant-Governor in Council;

That the Maintenance and Repairs appropriation for the Parliament Buildings, Main Building, is exhausted, and the Conger Coal Company's approved (contract) account is unpaid, amounting to the sum of $1,255 93.

That as previously reported the appropiation for "Capital Account" of the Asylum for insane, London, is exhausted, and that further approved

accounts (understood to cover the completion of the said sewage disposal works) are unpaid; as shown by the several accounts and upon the schedule thereof hereto attached, amounting in all to the sum of $2,809 86.

The undersigned therefore recommends, that authority be given under the Act R. S. O., 1887, Cap. 21, Sec. 20, for cheques to issue to the parties named and the amouuts specified in the schedules hereto attached.

(Sd) C. F. FRASER,
Commissioner.

PROVINCIAL AUDITOR'S OFFICE;
TORONTO, October 11th, 1889.

SIR,—I beg to enclose herewith an application from the Department of Public Works for payment, under authority of Cap. 21, Sec. 20, R.S.O., 1887, of accounts chargeable as follows :—

Public Buildings :

Asylum for Insane, London $2,809 86

Repairs and Maintenance :

Main Building (Parliament Buildings).... 1,255 93

Total $4,065 79

Your obedient servant,

(Sd) C. H. SPROULE,
Provincial Auditor.

The CLERK,
Treasury Board.

MINUTE OF TREASURY BOARD ON MATTERS REFERRED TO THEM FOR CONSIDERATION.

Upon consideration of a report of the Honourable the Commissioner of Public Works, dated the 11th day of October, A.D. 1889, the Treasury Board doth hereby under the authority of R.S.O., 1887, Cap. 21, Sec. 20,

recommend that warrants be issued in favour of the Honourable the Treasurer for the following amounts :—

Public Buildings :

Asylum for Insane, London $2,809 86

Repairs and Maintenance :

Main Building, (Parliament Buildings) 1,255 93

$4,065 79

The amounts voted for said sub-services for the current year, having become exhausted.

Certified,

J. R. CARTWRIGHT,
For Clerk, Treasury Board.

C. H. SPROULE, ESQ.,
Provincial Auditor.

Education.—Departmental Examinations $688 75

EDUCATION DEPARTMENT,

TORONTO, 15th October, 1889.

The undersigned respectfully reports to His Honour the Lieutenant-Governor in Council.

That the sum appropriated for the sub-service of "Departmental Examinations" of the Education Department, specified in accompanying requisition, is insufficient for the current year, and as it is necessary that such accounts should be paid this year, the undersigned respectfully recommends, that authority be given under the Act, 49 Vic., Cap. 4, Sec. 20, for appropriating a further sum of $688.75 to meet the deficiency.

(Sd) G. W. ROSS,
Minister of Education.

PROVINCIAL AUDITOR'S OFFICE,

TORONTO, October 17th, 1889.

SIR,—I beg to enclose herewith an application from the "Education Department," for payment under authority of Cap. 21, Sec. 20, R.S.O., 1887, of accounts for "Departmental Examinations" amounting to $688.75.

Your obedient servant,

(Sd) C. H. SPROULE,
Provincial Auditor.

The CLERK,
Treasury Board.

MINUTE OF TREASURY BOARD ON MATTERS REFERRED TO THEM FOR CONSIDERATION.

Upon consideration of a report of the Honourable the Minister of Education, dated the 14th day of October, A.D. 1889, the Treasury Board doth hereby, under the authority of R.S.O.. 1887, Cap. 21, Sec. 20, recommend that a warrant for the sum of $688.75, be issued in favour of the Honourable the Treasurer, for "Departmental Examinations," the amount voted for the said sub-service for the current year having become exhausted.

Certified,

J. L. CAPREOL,
Clerk, Treasury Board.

C. H. SPROULE, ESQ.,
Provincial Auditor.

Public Buildings:	
Agricultural College	$1,439 81
Parry Sound District	241 20
Nipissing District	332 40
Repairs and Maintenance:	
Wellington Street Premises	150 00

PUBLIC WORKS DEPARTMENT;

TORONTO, December 7th, 1889.

The undersigned respectfully reports to His Honour the Lieutenant. Governor in Council.

That the "Maintenance and Repairs" appropriation for the Wellington Street Rented Premises is exhausted, and the rent for the past quarter ending the 1st December instant, is unpaid.

That the several "Capital Accounts" appropriation for the Agricultural College, the Parry Sound District, and the Nipissing District, are exhausted and sundry accounts as per annexed schedule are unpaid, the whole amounting to $2,163.41.

The undersigned therefore recommends that authority be given under the Act R. S. O., 1887, Cap. 21, Sec. 20, for the payment of the accounts named in said schedule.

(Sd.) C. F. FRASER,
Commissioner.

PROVINCIAL AUDITOR'S OFFICE,
TORONTO, December 12th, 1889.

SIR,—I beg to enclose herewith an Application from the Department of Public Works for payment of accounts, under authority of R. S. O., 1887, Cap. 21, Sec. 20, chargeable as follows:—

Public Buildings:	
Agricultural College	$1,439 81
Parry Sound District	241 20
Nipissing District	332 40
Repairs and Maintenance:	
Wellington Street premises	150 00
Total	$2,163 41

Your obedient servant

(Sd.) C. H. SPROULE,
Provincial Auditor.

THE CLERK
Treasury Board.

MINUTE OF TREASURY BOARD ON MATTERS REFERRED TO THEM FOR CONSIDERATION.

Upon consideration of a report of the Honourable the Commissioner of Public Works, dated the 7th day of December, A.D. 1889, the Treasury Board doth hereby authorize, that in pursuance of the provisions of R. S. O., 1887, Cap. 21, Sec. 20, a warrant for the sum of two thousand one hundred and sixty-three dollars and forty-one cents ($2,163.41) be issued in favour of the Honourable the Treasurer, to enable him to pay the following sums chargeable against the appropriations hereunder mentioned, which have become exhausted:—

Public Buildings:	
Agricultural College	$1,439 81
Parry Sound District	241 20
Nipissing District	332 40
Repairs and Maintenance:	
Wellington Street premises	150 00
Total	2,163 41

Certified,

J. L. CAPREOL,
Clerk, Treasury Board

C. H. SPROULE, ESQ.,
Provincial Auditor.

Repairs and Maintenance:	
Government House	$19 50
Main Building, Parliament Buildings	117 24
Public Buildings:	
London Asylum	50 00
Agricultural College	168 83
District Algoma	37 00
District Thunder Bay	6 83
District Parry Sound	54 45
District Nipissing	293 35

Public Works Department,
Toronto, December 9th, 1889.

The undersigned respectfully reports to His Honour the Lieutenant-Governor in Council :—

That the Maintenance and Repairs appropriations for "Government House" and "Main Building," Parliament Buildings, are exhausted, and the several "Capital Accounts" appropriations for "Nipissing District," "Agricultural College," "Parry Sound District." "Algoma District," "Thunder Bay District" and "London Asylum" are also exhausted, and that sundry further accounts amounting in all to $747.20 are still awaiting settlement, as are shown upon the schedule, and by said accounts hereto attached.

The undersigned therefore recommends that authority be given under the Act R. S. O., 1887, Cap. 21, Sec. 20, for the issue of a cheque in favor of W. Edwards, Secretary Public Works Department, for the above mentioned sum of $747.20 to cover said accounts.

(Sd.) C. F. FRASER,
Commissioner.

PROVINCIAL AUDITOR'S OFFICE,
TORONTO, December 12th, 1889.

The undersigned respectfully reports to His Honour the Lieutenant Governor in Council :—

That the accounts referred to in the report attached from the Honourable the Commissioner of Public Works, amounting to $747.20 and belonging to services, the appropriations for which had been exhausted, were paid by Mr. Edwards out of Accountable Warrants, subject to his order.

Your obedient servant,

(Sd.) C. H. SPROULE,
Provincial Auditor.

PROVINCIAL TREASURER'S DDPARTMENT,
TORONTO, 18th December, 1889.

The undersigned begs to submit to the Treasury Board report of the Honourable the Commissioner of Public Works, as to expenditure made by Mr. Edwards, Secretary of the Public Works Department, for services for which the appropriations have been exceeded, as also the report of the Provincial Auditor thereon, and recommends that a cheque be issued in favour of Mr. Edwards for the amount of $747.20 to cover the same.

(Sd.) A. M. ROSS,
Provincial Treasurer.

MINUTE OF THE TREASURY BOARD ON MATTERS REFERRED TO THEM FOR CONSIDERATION.

Upon consideration of the reports of the Honourable the Commissioner of Public Works and the Provincial Auditor, dated respectively the 9th and 12th December instant, and the report of the Honourable the Treasurer, dated 18th December, the Treasury Board doth hereby, under

the provisions of Sec. 20, Cap. 21, R.S.O., 1887, order that a warrant for the sum of $747.20 be issued in favour of Mr. William Edwards, Secretary of the Public Works Department, to pay the accounts set forth in the schedule hereto annexed and chargeable against the services in said schedule mentioned, the appropriations for which have become exhausted.

Certified, J. L. CAPREOL,
Clerk, Treasury Board.

C. H. SPROULE, ESQ.,
Provincial Auditor.

Public Institutions, Maintenance,		Mercer Reformatory....	$1,189 32
do	do	Central Prison	3,653 96

INSPECTOR OF PRISONS' OFFICE,
TORONTO, 31st December, 1889.

SIR,—I beg to transmit herewith, amounts as per schedule, amounting in all to $1,189. 32.

This expenditure has been incurred on "Maintenance Account" in connection with the Mercer Reformatory, and is in excess of the appropriation voted by the Legislature. The reasons for the excess are as under:—

1. Extra furnishings for Refuge Branch.

2. Replacing plaster ceilings with wooden ones throughout the institution, unforeseen and necessarily paid from maintenance account.

2. Expenditure for nurses paid for caring for diphtheria patients.

I beg to ask you to be good enough to submit this report to the Treasury Board, with a view to obtaining authority to pass these accounts.

I am, Sir,
Your obedient servant,

(Sd.) R. CHRISTIE,
Inspector.

C. H. SPROULE, ESQ.,
Provincial Auditor.

INSPECTOR OF PRISONS' OFFICE,

TORONTO, 31st December, 1889.

SIR,—I beg to transmit herewith, accounts as per schedule, amounting in all to $7,162.02, which causes an overdraft on Central Prison account, for maintenance and industries of $3,653.96.

This overdraft has been occasioned by increased expenditure, an account of salaries to foremam, managers, and the purchase of material such as wool, warp, etc., which was intended to be covered by the appropriation of $75,000.00 in Supplementary Estimates, but which I understand you are of opinion is not properly chargeable to expenditure on "Capital Account."

And I have to request that you will be good enough to submit this report to the Treasury Board, with a view to receiving authority to pass these accounts.

I am, Sir,
Your obedient servant,

(Sd.) R. CHRISTIE,
Inspector.

C. H. SPROULE, ESQ.,
Provincial Auditor.

PROVINCIAL AUDITOR'S OFFICE

TORONTO, Januury 4th 1890.

SIR,—I beg to enclose herewith a application from Mr. Inspector of Prisons Christie, for payment of accounts under authority of R. S. O., 1887, Cap. 21, Sec. 20, as follows :—

P. I. Maintenance :

Mercer Reformatory	$1,189 32
Central Prison	3,653 96
	——$4,843 28

Your obedient servant,

(S'd) C. H. SPROULE,
Provincial Auditor.

THE CLERK,
Treasury Board.

MINUTE OF THE TREASURY BOARD ON MATTERS REFERRED TO THEM FOR CONSIDERATION.

Upon consideration of a report of Mr. Inspector Christie, dated the 31st day of December, A.D. 1889, the Treasury Board doth hereby, under the provisions of R. S. O., 1887, Cap. 21., Sec. 20, order that a warrant for the sum of $4,843.28, be issued in favor of the Honourable the Treasurer for the payment of accounts, chargeable against the following appropriations, which have become exhausted. namely:—

P. I. Maintenance:

Mercer Reformatory	$1,189 32
Central Prison	3,653 96
	$4,843 28

Certified,

J. L. CAPREOL,
Clerk, Treasury Board.

C. H. SPROULE, ESQ.,
Provincial Auditor.

Total	24,370 30

Less refunds, rebate gas accounts, etc., received after applications for Treasury Warrants had been applied for.

Education	$ 72	
Repairs and Maintenance	184 84	
Public Buildings	746 92	
		932 48
Total Expenditure under authority of 49 Victoria, Cap. 4, Sec. 20		$23,437 82

RECAPITULATION.

Education	$5,300 99
Public Institutions Maintenance	4,843 28
Repairs and Maintenance	1,357 83
Public Buildings	11,935 72
	$23,437 82

UNAUTHORIZED EXPENDITURES.

Civil Government:			
Education Department	$ 15 96		
Crown Lands do	93 79		
Secretary and Registrar's Dept'mt	408 21		
License Branch	30 30		
		$548 26	
Education:			
Normal and Model Schools, Toronto	44 15		
Miscellaneous	132 39		
		176 54	
Repairs and Maintenance:			
West Wing (Parliament B'ldings)	73 97		
Simcoe Street Premises	106 03		
		180 00	
Public Buildings:			
Agricultural College	192 00		
Thunder Bay District	18 25		
		210 25	
Refunds:			
Drainage Debentures		256 24	
			1,371 29
Total overdrafts of Appropriations			$24,809 11

Respectfully submitted,

C. H. SPROULE,
Provincial Auditor.

CONTENTS.

MISCELLANEOUS STATEMENTS.

	Page.
Receipts and Payments	2
Balance of Open Accounts	6
Consolidated Revenue Fund	9
Investment Account	10
Interest on Investments, 1889	11
Law Stamp Revenue	12
Education Department Revenue	13
Algoma Taxes Revenue	14
Casual Revenue	17
Stationery Office	18

EXPENDITURE STATEMENTS.

	Page.
Administration of Justice:	
Supreme Court of Judicature	50
Court of Appeal	51
High Court	51
Chancery Division	52
Queen's Bench Division	52
Common Pleas Division	53
Surrogate Judges and Local Masters	53
Crown Counsel Prosecutions	55
General Administration of Justice in Counties	57
Special Services	65
Deputy Clerks of the Crown and Pleas	70
Local Registrars	71
District of Algoma	72
do Thunder Bay	73
do Rainy River	74
do Nipissing	74
do Parry Sound	75
do Muskoka	75
do Manitoulin	76
do Haliburton	76
Provincial Police	76
Sheriff's Fees, etc	66
Seals and other contingencies	68
Inspection, Division Courts	65
do Offices under Judicature Act	65
Registration books	69
Shorthand Reporters	68
Constitutional Questions	68
Grouped Counties	69
Land Titles Act	71
Local Masters of Titles	72
Ditches and Water Courses Act	69
Agriculture:	
Electoral Division Societies	184
Grants to Associations	186
Agricultural College	193
Experimental Farm	197
Creamery	207
Miscellaneous	189
Farmers' Institutes	187
Bureau of Statistics	191
Forestry	190
Tree Planting	191
Annuities	287
Civil Government:	
Government House	23
Lieutenant-Governor's Office	23
Attorney-General's Department	23
Education do	25
Crown Lands do	27
Public Works do	30
Treasury do	31
Provincial Auditor's Office	33
Department of Agriculture	35
Secretary and Registrar's Department	38
Registrar-General's Branch	37
License do	40
Public Institutions office	34
Immigration do	37
Official *Gazette*	42
Queen's Printer	42
Board of Health	41
Inspection of Insurance Companies	43
do Registry Offices	43
Colonization Roads	256
Crown Lands:	
Board of Surveyors	262
Agents' Salaries	263
Forest Ranging	264
Fire Ranging	265
Surveys	267
Drainage Debentures (Municipal)	287
Drainage, Tile	287
Education:	
Public Schools	77
Separate do	88
Poor do	93
Model do	105
Teachers' Institutes	107
Inspection, Public and Separate Schools	113
High Schools	108
Training Institutes	111
Inspection High Schools	111
Departmental Examinations	115

EDUCATION—*Continued.* PAGE.
Normal and Model Schools, Toronto. 118
do do Ottawa . 120
Museum, Library, etc..... 122
School of Practical Science..... 123
Mechanics' Institutes..... 125
Art Schools..... 129
Literary and Scientific..... 130
Superannuated Teachers..... 131
Miscellaneous..... 130

HOSPITALS AND CHARITIES..... 208

IMMIGRATION :
Agencies in Europe..... 182
do Ontario..... 183
Incidentals..... 183

LEGISLATION :
Official Salaries..... 44
Sessional Writers, Messengers, Pages, etc..... 44
Postages and cost of House Post Office..... 46
Stationery, Printing and Binding.. 46
Printing Bills and Distributing Statutes..... 47
Library..... 47
Indemnity to Members..... 48
Contingencies..... 48

MISCELLANEOUS :
Charges on Revenue..... 275
Canada Temperance Act..... 276
Marriage Licenses..... 277
Ontario Rifle Association..... 277
Artillery Association..... 277
Expenses of Elections..... 277
Voters' Lists..... 278
Gratuities..... 278
Industrial School, Mimico..... 287
Archæological Researches..... 279
Telephone Service..... 279
Removal of Patients..... 279
Prisoners' Aid Society..... 280
Vaccine Farm..... 281
Sanitary Investigations..... 280
Outbreak of Epidemics..... 280
University College (Ladies Department)..... 281
Factories' Act..... 280
Mining Commission..... 276
Municipal Commission..... 276
American Science Ass'n..... 281
do Ass'n Mining Engineer... 281
Cincinnati Exhibit..... 281
Unprovided Items..... 282

NEW PARLIAMENT BUILDINGS :

PUBLIC INSTITUTIONS MAINTENANCE :
Asylum for the Insane, Toronto... 131
do London.... 135
do Kingston.. 141
do Hamilton.. 146
do Idiots, Orillia..... 152
Central Prison..... 157
Central Prison Industries..... 161
Reformatory for Boys..... 163
Mercer Reformatory..... 178

PUBLIC INSTITUT'NS MAINT'NCE—*Con.* PAGE.
Institution for the Deaf and Dumb. 167
do Blind..... 173

PUBLIC BUILDINGS :
Asylum for Insane, Toronto..... 228
do London..... 229
do Kingston..... 233
do Hamilton..... 232
do Idiots, Orillia..... 233
Reformatory for Boys..... 235
Mercer Reformatory..... 235
Central Prison..... 236
Institution for the Deaf and Dumb. 238
do Blind..... 239
Agricultural College..... 239
Education Dept. and Normal School 242
Normal School, Ottawa..... 242
School of Practical Science..... 243
Osgoode Hall..... 243
Government House..... 243
District of Algoma..... 243
do Thunder Bay..... 244
do Rainy River..... 247
do Muskoka..... 245
do Parry Sound..... 245
do Nipissing..... 246
Brock's Monument..... 247

PUBLIC WORKS :
Peninsula Creek Improvement.... 247
Scugog River Works..... 248
Maganetawan Works..... 248
Muskoka Lakes Works..... 248
Gull and Burnt River Works..... 249
Kushog Lake Dam..... 250
Mississippi River Improvement ... 250
Head River Improvements..... 251
Lake and Bays..... 251
River Beaudette..... 251
Georgian Bay Channel..... 249
Maintenance Locks, Dams, etc.... 252
Surveys, Inspections, etc..... 255
Lockmasters' Salaries..... 252

REFUNDS :
Education..... 268
Crown Lands..... 270
Drainage Debentures..... 273
Land Improvement Fund..... 273

RAILWAY SUBSIDY FUND..... 283

REPAIRS AND MAINTENANCE, GOVERNMENT DEPARTMENTAL BUILDINGS :
Government House..... 211
Parliament Buildings..... 213
Educational Buildings..... 217
Simcoe Street Premises..... 219
Wellington Street Premises..... 220
Miscellaneous..... 221
Normal School, Ottawa..... 221
School of Practical Science..... 222
Agricultural College..... 223
Osgoode Hall..... 226
Agricultural Hall..... 225

STATUTE CONSOLIDATION..... 275

WIDOWS' PENSIONS..... 289

MISCELLANEOUS STATEMENTS.

No. 1.

RECEIPTS AND EXPENDITURES.

BALANCE SHEET, Shewing the RECEIPTS AND PAYMENTS of the Treasurer of Ontario during the Year 1889, with the Cash Balances on 1st January and 31st December.

RECEIPTS.	$ c.	$ c.	$ c.	PAYMENTS.	$ c.	$ c.	$ c.
To Balance from Public Accounts 1888			57,364 39				
CONSOLIDATED REVENUE FUND.				CONSOLIDATED REVENUE FUND.			
From Dominion of Canada:							
" Subsidy	1,116,872 80						
" Special Grant	80,000 00						
		1,196,872 80					
" Interest on capital held, and debts due by the Dominion	280,000 00			For Civil Government		211,761 68	
" Interest on investments	75,025 98			" Legislation		119,938 69	
		355,025 98		" Administration of Justice		366,252 24	
" Crown Lands Department:				" Education		598,238 32	
Crown Lands	66,888 54			" Public Institutions Maintenance		728,909 61	
Railway "	5,748 50			" Immigration		6,849 90	
Grammar School Lands	962 42			" Agriculture		138,787 58	
Rent *re* Lands	200 00			" Hospitals and Charities		120,402 48	
In suspense *re* Lands	22,722 95			" Repairs and Maintenance, Public Buildings		64,732 60	
Woods and Forests	1,078,598 12			" Locks, Dams, etc.		11,107 49	
Casual Fees	980 19			" Surveys, Inspections, etc.		480 00	
				" Colonization Roads		103,666 63	
Refunds:				" Charges on Crown Lands		101,775 68	
Surveys	1,489 56						
Colonization Roads	13 60			" Refunds:			
Agents Salaries	57 10			" Education	1,998 44		
Settlers' Homesteads	100 00			" Crown Lands	13,018 15		
Destitute Settlers	304 27			Drainage Debentures	256 24		
		1,178,065 25				15,272 83	

From Sale of Lands at Toronto Asylum		119,851 20	
" Licenses		302,734 44	
" Law Stamps		84,841 65	
" Algoma Taxes		3,911 49	
" Education Department		35,359 71	
" Casual Revenue		53,310 44	
" Public Institutions:			
Toronto Lunatic Asylum	36,036 28		
London "	10,280 99		
Hamilton "	8,756 07		
Kingston "	3,579 95		
Orillia "	2,169 53		
Reformatory for Females	3,937 15		
" Boys	610 50		
Central Prison	65,679 09		
Deaf and Dumb Institute	150 00		
		131,199 56	
			3,461,172 52
OPEN ACCOUNTS.			
" Crown Lands Department:			
Clergy Lands	3,972 34		
Common School Lands	14,418 29		
		18,390 63	
" Public Works and Buildings *re* "Capital Account":			
London Asylum	40 00		
Mercer Reformatory	1,049 50		
Deaf and Dumb Institute	80 10		
		1,169 60	
" Sale of lands *re* new Parliament Buildings Fund		315 74	
" Municipal Loan Fund		850 00	
" Drainage Works, rent charges		17,486 76	
" Drainage Debentures	35,627 91		
" Drainage Debentures, Tile	3,391 92		
		39,019 83	
			77,232 56
" Amount withdrawn from Special Deposit as per Statement No. 4			1,421,579 75
" Stationery Account, excess of distribution over purchases			3,268 82
Carried forward			5,020,618 04

For Consolidation of Statutes		781 97	
" Miscellaneous		60,013 63	
			2,648,971 33
OPEN ACCOUNTS.			
" Asylum for Insane, Toronto		9,821 56	
" " " Mimico Branch		172,062 94	
" Asylum for Insane, London		35,896 08	
" " Hamilton		21,383 03	
" " Kingston		3,628 13	
" " Orillia		57,596 30	
" Reformatory for Boys, Penetang		4,725 85	
" " Females, Toronto		34,262 83	
" Central Prison, Toronto		63,375 05	
" Deaf and Dumb Institute, Belleville		6,697 45	
" Blind Institute, Brantford		1,760 45	
" Agricultural College, Guelph		28,980 64	
" Normal School, Toronto		7,000 00	
" " Ottawa		2,941 70	
" School of Practical Science, Toronto		33,117 31	
" Osgoode Hall		3,691 18	
" Government House		2,712 00	
" District of Algoma:			
Court House, etc., Sault Ste. Marie	7,082 92		
Lock-up, Thessalon	339 70		
" Killarney	318 00		
" Bruce Mines	5 00		
" Gore Bay	4,951 93		
" Manitowaning	92 85		
" Little Current	4 50		
		12,794 90	
" District of Thunder Bay:			
Lock-up, etc., Fort William	462 16		
" Port Arthur	62 92		
		525 08	
" District of Muskoka:			
Lock-up, etc., Bracebridge	177 03		
" Huntsville	253 65		
		430 68	
Carried forward		503,403 16	2,648,971 33

No. 1.—Balance Sheet, Showing the Receipts and Payments of the Treasurer of Ontario during the year 1889, with the Cash Balances on the 1st January and 31st December—*Concluded.*

RECEIPTS.	$ c.	$ c.	$ c.	PAYMENTS.	$ c.	$ c.	$ c.
Brought forward			5,020,618 04	*Brought forward*		503,403 16	2,648,971 33
				For District of Parry Sound :			
				Lock-up, etc., Burk's Falls	483 38		
				" Parry Sound	7,209 37		
				" Magnetawan	45 74		
						7,738 49	
				" District of Nipissing :			
				Lock-up, etc., North Bay	4,684 55		
				" Mattawa	13 25		
				" Sudbury	1,831 70		
						6,529 50	
				" District of Rainy River :			
				Lock-up, etc., Rat Portage		542 44	
				" Brock's Monument		193 80	
				" New Parliament Buildings		143,167 35	
				" Peninsula Creek Inspection		717 07	
				" Scugog River Works		2,083 52	
				" Magnetawan River Works		279 36	
				" Muskoka Lake Works		2,613 69	
				" Gull and Burnt River Works		300 00	
				" Georgian Bay Works		667 54	
				" Kushog Lake Dam		300 00	
				" Mississippi River Improvement		1,464 35	
				" Head River Improvement		976 82	
				" Lake of Bays		581 82	
				" River Beaudette		1,500 00	

				For Refunds:			
				Land Improvement Fund		2,752 04	
				" Aid to Railways		247,982 14	
				" Annuities		52,200 00	
				" Widows' Pensions		1,764 07	
				" Drainage Debentures, Municipal		17,727 88	
				" " Tile		8,900 00	
							1,004,385 04
				" Special Deposits per Statement No. 4			1,261,742 77
				Balance (See Statement No. 2)			105,518 90
Total			5,020,618 04	Total			5,020,618 01

PROVINCIAL AUDITOR'S OFFICE,
Toronto, February 6th, 1890.

C. H. SPROULE,
Provincial Auditor.

No. 2.

OPEN ACCOUNTS—STATEMENT of the Balance of Open Accounts, December 31st, 1889.

	$ c.	$ c.		$ c.
Current Balances, Bank of Commerce	12,782 86		Consolidated Fund	8,530,743 43
do Ontario Bank	45,224 81		Municipal Loan Fund	1,659,125 85
do Dominion Bank	2,621 59		Common School Fund	971,496 41
do Imperial Bank	20,789 81		Municipalities Fund	7,268 04
do Standard Bank	24,225 36		Railway Fund	400,162 35
do Central Bank	39 34		Annuities	792,512 85
do Federal Bank	73 61			
	105,757 38			
do Overdrawn, Bank of Montreal..$142 63				
do do Consolidated Bank. 95 85	238 48			
		105,518 90		
Special Deposits, Bank of Commerce	150,000 00			
do Ontario Bank	150,000 00			
do Imperial Bank	61,742 77			
do Standard Bank	50,000 00			
		411,742 77		
Dominion of Canada, 6 per cent. Bonds		200,000 00		
Dominion of Canada		72,717 76		
Toronto General Hospital		4,000 00		
Railway Subsidy Fund, 35 and 37 Victoria		496,080 75		
Railway Land Account, 40 Victoria		638,283 99		
Railway Aid Fund, 39 do		454,421 78		
do 41 do		110,340 26		
do 44 do		155,652 20		
Surplus Distribution		3,388,777 47		
Drainage Assessment Fund		224,742 01		
Drainage Debentures		187,481 14		
Tile Drainage Debentures		78,456 69		
Stationery Supply Account		2,664 78		
Parliament Buildings		107,306 49		
New Parliament Buildings		315,966 28		

Agricultural Farm, Mimico		32,116 35
Agricultural Hall		324 00
Agricultural College, Guelph		336,789 83
Government House		169,429 59
Osgoode Hall		92,060 24
*Central Prison		643,106 48
Andrew Mercer Reformatory, Toronto		101,295 80
Reformatory for Boys, Penetanguishene		140,811 48
Institution for the Deaf and Dumb, Belleville		233,440 28
Asylum for the Blind, Brantford		233,588 50
Asylum for the Insane, London		733,843 59
do do Hamilton		649,384 72
do do Toronto		299,367 20
do do Kingston		329,449 23
do do Orillia		290,413 61
Mimico Branch Asylum		178,097 04
College of Technology		113,163 37
Normal School, Toronto		113,403 16
do Ottawa		156,159 12
Otonabee River Works		7,266 66
Scugog River Works		81,005 34
Gull and Burnt River Works		68,519 87
Muskoka River Works		64,021 39
Nation River Works		10,877 23
Balsam and Cameron Lakes Works		39,551 97
Georgian Bay Works		5,085 37
Lake of Bays Works		581 82
Mississippi River Works		1,464 35
Head River Works		976 82
River Beaudette Works		1,500 00
Kushog Lake Dam		300 00
Improvement of Peninsula Creek		19,007 40
Lock, Mary's and Fairy Lakes		53,465 75
do Maganetawan		47,886 88
Registry Office and Lock-up, Thunder Bay		21,810 75
do do Bracebridge		752 10
do do North Bay		18,058 80
do do Algoma		11,795 45
do do Parry Sound		15,601 21
Court House and Gaol, Algoma		24,369 27
Registry Office, Gaol and Lock-up, Port Arthur		14,370 92
Court Room and Lock-up, Rat Portage		19,454 93
Lock-up, Bruce Mines		5,409 82
do Gore Bay		5,409 38
do Huntsville		2,302 15
do Mattawa		733 47
do Sudbury		2,467 97
do Fort William		6,757 13
Carried forward		12,351,201 06

Carried forward	12,361,308 93

3 (P.A.)

7

No. 2.—Statement of Balance of Open Accounts—*Continued.*

——	$ c.	$ c.	——	$ c.
Brought forward		12,351,201 06	*Brought forward*	12,361,308 93
Lock-up, Maganetawan		631 40		
do Killarney		1,272 97		
do Burk's Falls		5,527 69		
do Little Current		20 55		
do Thessalon		1,160 24		
do Manitowaning		107 35		
Shelter and Buildings, Brock's Monument		1,387 67		
Total		12,361,308 93	Total	12,361,308 93

C. H. SPROULE,
Provincial Auditor.

Provincial Auditor's Office,
Toronto, February 6th, 1890.

No. 3.

STATEMENT OF THE CONSOLIDATED REVENUE FUND, including items transferred to it, 31st December, 1889.

——	$ c.	$ c.	——	$ c.	$ c.
To Expenditure as per Statement No. 1	2,648,971 33		By Balance as per Statement No. 3, 1888	7,820,499 82	
" Land Improvement Fund	2,752 01		" Receipts as per Statement No. 1	3,461,172 52	
" Railway Subsidy Fund	100,000 00				11,281,672 34
		2,751,723 37	*By Municipalities Fund :—*		
To Balance		8,530,743 43	Twenty per cent. on amount collected during the year for cost of management		794 46
		11,282,466 80			11,282,466 80

C. H. SPROULE,
Provincial Auditor.

PROVINCIAL AUDITOR'S OFFICE,
TORONTO, February 6th, 1890.

No. 4.

INVESTMENT ACCOUNT.

TO WHOM PAID.	NATURE OF INVESTMENT.	Amount.	Amount.	Total.
		$ c.	$ c.	$ c.
	Amount of special deposits, 31st December, 1888		571,579 75	
Bank of Commerce	Special deposits made during 1889	300,000 00		
Dominion Bank	do do	100,000 00		
Imperial Bank	do do	261,742 77		
Ontario Bank	do do	300,000 00		
Standard Bank	do do	200,000 00		
Bank of Hamilton	do do	100,000 00		
			1,261,742 77	
	Less amounts withdrawn to meet current expenditure, viz. :—			
	Bank of Commerce	350,000 00	1,833,322 52	
	Dominion Bank	100,000 00		
	Imperial Bank	300,000 00		
	Ontario Bank	300,000 00		
	Standard Bank	271,579 75		
	Bank of Hamilton	100,000 00		
			1,421,579 75	
	Amount of special deposits, 31st December, 1889			411,742 77
	Composed of special deposits now in—			
	Bank of Commerce, bearing interest at 4 per cent		150,000 00	
	Ontario Bank, do		150,000 00	
	Imperial Bank, do		61,742 77	
	Standard Bank, do		50,000 00	
				411,742 77
	Interest bearing securities held by the Province on 31st December, 1889, exclusive of Trust Funds in the hands of the Dominion Government :—			
	Special deposits in Banks		411,742 77	
	Dominion of Canada 6 per cent. bonds, par value		200,000 00	
	Mortgages bearing interest at 5 per cent. re sale of lands for Mimico Cottages and Parliament Buildings		92,115 37	
	Drainage Loans		224,742 01	
	Drainage Debentures		187,481 14	
	Tile Drainage Debentures		78,456 69	
				1,194,537 98

PROVINCIAL AUDITOR'S OFFICE,
TORONTO, February 6th, 1890.

C. H. SPROULE,
Provincial Auditor.

No. 5.

INTEREST ACCOUNT.

STATEMENT OF INTEREST received during the year ending 31st December, 1889.

FROM WHOM RECEIVED.	NATURE OF INVESTMENTS.		Amount.	Total.
			$ c.	$ c.
Hon. Minister of Finance, Ottawa	Interest on Capital held and Debts due to the Province by the Dominion		280,000 00	
do do	Twelve months' dividend on $200,000, 6 per cent. Bonds to 30th September		12,000 00	
Sundry persons	Interest on Asylum Lands, Mortgages		5,930 28	
City of St. Catharines	do Municipal Loan Fund Debentures		121 25	
J. J. Kenny	do Mimico Farm Mortgage		350 00	
Sundry municipalities	do Drainage Debentures and Loans		22,398 21	
Bank of Commerce	do Special deposits to 31st December		9,700 35	
Ontario Bank	do do		9,115 93	
Standard Bank	do do		5,166 11	
Dominion Bank	do do		1,572 60	
Imperial Bank	do do		5,432 15	
Bank of Hamilton	do do		3,627 40	
			355,414 28	
	Less accrued interest allowed on Drainage Debentures purchased, viz.:			
	Township of Aldborough	$84 00		
	do W. Zorra	31 66		
	do Logan	17 00		
	do W. Flamboro'	204 57		
	do Moore	16 78		
	do Elma	34 29		
			388 30	
				355,025 98

PROVINCIAL AUDITOR'S OFFICE,

TORONTO, February 6th, 1890.

C. H. SPROULE,

Provincial Auditor.

No. 6

LAW STAMPS.

STATEMENT of Revenue received on account of Law Stamps during the year ended 31st December, 1889.

COUNTY.	DISTRIBUTOR.	$ c.
Brant	G. R. VanNorman	1,162 80
Bruce	Thomas Dixon	1,596 00
Carleton	R. Lees	3,527 35
Dufferin	Thomas Bowles	285 00
Elgin	J. Farley	950 00
Essex	F. E. Marcon	760 00
Frontenac	B. M. Britton	2,327 50
Grey	A. Frost	705 00
Halton	T. G. Matheson	608 25
Haldimand	J. R. Martin	190 00
Huron	D. McDonald	1,691 00
Hastings	G. E. Henderson	2,760 00
Kent	J. Holmes	1,947 50
Lambton	J. P. Eucke	650 75
Leeds and Grenville	S. Reynolds	1,007 00
Lennox and Addington	A. L. Morden	1,235 00
Lanark	C. Rice	854 05
Lincoln	J. McKeown	1,045 00
Middlesex	C. Hutchinson	3,629 00
Northumberland and Durham	J. W. Kerr	1,947 50
Norfolk	C. J. Rapelje	360 00
Ontario	J. E. Farewell	783 25
Oxford	F. R. Ball	1,082 00
Peterborough	R. E. Wood	807 50
Prince Edward	P. Low	261 25
Prescott and Russell	J. Fraser	190 00
Peel	W. H. McFadden	1,877 20
Perth	J. Idington	1,140 00
Renfrew	J. H. Metcalfe	422 75
Simcoe	J. R. Cotter	1,730 90
Stormont, Dundas and Glengarry	J. Dingwall	1,235 00
Victoria	J. R. McNeillie	665 00
Waterloo	W. H. Bowolby	2,050 00
Wellington	H. W. Peterson	247 25
Wentworth	J. Crerar	4,294 00
Welland	L. D. Raymond	589 00
York	W. W. Baldwin	36,075 00
Toronto City	J. Gordon Brown	1,638 75
Algoma District	J. J. Kehoe	190 25
Muskoka District	I. Huber	110 10
Thunder Bay District	A. R. Lewis	213 75
	Total	84,841 65

C. H. SPROULE,
Provincial Auditor.

PROVINCIAL AUDITOR'S OFFICE,
TORONTO, February 6th, 1890.

No. 7.

EDUCATION REVENUE.

STATEMENT OF THE RECEIPTS OF THE EDUCATION DEPARTMENT DURING THE YEAR 1889.

SERVICE.	PARTICULARS.	Amount.	Total.
		$ c.	$ c.
Normal and Model Schools, Toronto	Fees from Model School and Kindergarten Pupils	9,262 00	
do Ottawa	do do	7,240 00	16,502 00
Departmental Examinations	Examination Fees and Appeals		14,037 73
Superannuated Teachers	Subscriptions, 1889		1,490 77
Miscellaneous	Sale of Museum Catalogues, waste paper, School Acts, Registers, etc., etc		154 21
School of Practical Science	Students' Fees		3,175 00
			35,359 71

PROVINCIAL AUDITOR'S OFFICE,

TORONTO, February 6th, 1890.

C. H. SPROULE,

Provincial Auditor.

No. 8.

TAXES ON PATENTED LANDS.

STATEMENT shewing the several amounts received by the Treasurer of Ontario on account of Taxes on Patented Lands in the District of Algoma, for the year ended 31st December, 1889.

FROM WHOM RECEIVED.	SERVICE.	$ c.	$ c.
Thos. Collins	On account of Taxes	3 31	
S. W. Finch	do	10 85	
E. T. Dooley	do	88	
C. H. Krause	do	2 90	
T. A. Gorham	do	8 26	
M. Newmann	do	5 58	
Hon. J. C. Aikins	do	3 43	
E. A. Wild	do	6 80	
P. H. Jean	do	3 48	
G. J. Cook	do	1 09	
C. J. Johnson	do	1 99	
R. S. Gurd	do	17 32	
G. T. Ward	do	5 80	
Hugh Munro	do	5 44	
J. H. de Graffe	do	6 59	
R. R. Goodell	do	92	
Kingsmill & Co	do	15 37	
E. L. Hedstrom	do	2 48	
T. H. Hulbert	do	8 00	
Perkins & Fraser	do	9 95	
Wm. Harris	do	5 94	
D. Jackson	do	7 63	
Alois Ebmer	do	3 52	
Rev. C. E. Thomson	do	1 00	
Chas. Macdonell	do	27 48	
do	do	1 84	
Henry Estate	do	6 82	
C. G. Kimball	do	3 50	
R. P. Edson	do	88	
C. S. Morris	do	19 70	
H. E. Long	do	2 64	
Canada Copper Co	do	78 65	
T. Clark	do	64	
T. A. Keefer	do	14 36	
McIntosh & Johnston	do	17 43	
J. L. Meikle	do	2 90	
Alexander & Fergusson	do	12 76	
A. Pace	do	7 38	
R. W. Petre	do	1 71	
A. W. Bradley	do	2 36	
H. H. Bell	do	1 74	
J. Wheatley	do	12 47	
T. A. Gorham	do	13 38	
S. R. Kaiser	do	13 51	
J. Murray	do	17 01	
Hegler & Jackson	do	20 92	
Thomson & Co	do	54 10	
A. D. Cummings	do	3 70	
J. C. McDonald	do	77	
D. Gurofski	do	82	
G. Hartley	do	9 36	
J. C. Patterson	do	208 61	
	Carried forward	695 97	

No. 8.

TAXES ON PATENTED LANDS.—*Continued.*

From whom Received.	Service.	$ c.	$ c.
	Brought forward	695 97	
Goldwin Smith	On account of Taxes	1 60	
Sir Chas. Crawford	do	4 80	
Gordon & Sampson	do	146 36	
J. M. Grant	do	72	
A. E. Jones	do	26 79	
J. H. Sproule	do	4 80	
Crane & Baird	do	49 40	
Hodgson & Co	do	57 10	
Eliza M. Ball	do	11 07	
N. Flanagan	do	1 32	
P. McRae	do	3 17	
D. L. Lockerby	do	7 60	
J. E. Norton	do	1 60	
B. F. Felt	do	3 00	
D. B. McRae	do	4 08	
Mrs. Crean	do	3 33	
A. C. Bruce	do	16 05	
J. A. McColman	do	15 90	
D. McKinnon	do	9 28	
J. H. Burwell	do	5 67	
J. C. Daniels	do	4 00	
Dalzell & Turnbull	do	24 24	
Mrs. W. Allison	do	1 38	
D. A. Petre *et al*	do	10 21	
T. Marks	do	3 78	
A. T. Ramage	do	4 46	
Kingsmill & Co.	do	6 66 3 99	
G. A Graham	do	4 40	
W. J. Clarke	do	9 11	
Geo. N. Bradley	do	14 00	
E. O'Keefe	do	9 06	
J. Fraser	do	79	
Gordon & Sampson	do	12 75 7 86	
S. H. Ferris	do	3 77	
Wm. Torson	do	1 60	
A. R. Lewis	do	16 92	
Collin's Inlet L Co	do	2 00	
J. Ramis	do	13 00	
F. E. Gay	do	5 78	
C. A. Lee	do	3 84	
G. C. Stone	do	2 15 1 60 4 46	
G. H. Robinson	do	2 33	
D. F. Burk	do	18 70	
F. G. Saltorstall	do	9 57	
Wells & McMurchy	do	21 92	
J. Wideman	do	1 05	
C. R. Allen	do	12 07	
A. Messer	do	80	
W. W. Brader	do	6 48	
W. A. Austin	do	1 90	
S. J. Dawson	do	17 81	
H. G. Ball	do	5 18	
	Carried forward	1,339 23	

No. 8.

TAXES ON PATENTED LANDS.—*Continued.*

From whom Received.	Service.	$ c.	$ c.
	Brought forward	1,339 23	
D. Jackson	On account of Taxes	6 94	
J. L. White	do	1 00	
C. G. Kimball	do	80 1 59 80	
E. O'Keefe	do	13 18	
I. G. Spears	do	2 00	
T. Easterbrook	do	2 00	
C. H. Ritchie	do	3 70	
G. J. Cook	do	10 90	
F. B. Maxwell	do	3 62	
C. H. Krause	do	1 60	
T. Luton	do	4 00	
F. Fisher	do	8 86	
J. C. T. Cochrane	do	5 61	
J. McArthur	do	1 00	
J. J. Vickers	do	22 94	
J. S. Pillsburg	do	1 70	
Meredith & Co	do	7 40	
C. J. Johnson	do	3 21	
Chas. A. Krause	do	80	
J. Harvey	do	5 90	
J. C. Palmer	do	5 27	
W. E. Sanford	do	2 67	
J. McGee	do	23 33	
R. Martin	do	7 32	
Wm. Nason	do	20 11	
Beaver M. Co	do	51 78	
Moss & Co	do	5 40	
J. J. Quinn	do	1 68	
R. Morrison	do	2 04	
Dr. Machell	do	25 34	
J. J. Kingsmill	do	3 65	
D. W. Allison	do	179 58	
Wm. Turner	do	332 04	
L. V. Percival	Receipts from tax sale	1,535 44	
do	do Deeds	319 10	
do	On account Redemption Fund	35 98	
			3,999 51
	Less for refund of taxes		88 02
			3,911 49

C. H. SPROULE,
Provincial Auditor.

Provincial Auditor's Office,
Toronto, 6th February, 1890.

No. 9.

CASUAL REVENUE.

STATEMENT OF CASUAL REVENUE, received by the Treasurer of the Province of Ontario during the year ended 31st December, 1889.

FROM WHOM RECEIVED.	SERVICE.	$ c.	$ c.
Toronto Land and Investment Corporation.	Fee for Discharge of Mortgage	2 00	
J. Gordon Brown	On account of Fees, Surrogate Court	1,130 50	
Warwick & Sons	On account of Ontario *Gazette*	8,530 23	
C. T. Gillmor	Fees received for Private Bills	4,339 75	
Judge Co. Perth	Surrogate Fees	150 20	
Department of Agriculture	Rent of Immigration Shed, Gravenhurst	10 50	
Treasurer of Muskoka	Jury Fees	3 00	
do	Unclaimed Fees	2 80	
J. Notman	On account of sales of Revised Statutes	854 40	
do	do Statutes of 1888	55 80	
do	do do 1889	591 60	
do	do Consolidated Rules of Practice	198 00	
License Commissioners Co. Norfolk	Refund of amount overdeposited by Government *re* Scott Act, N. Norfolk, 1887	20 00	
Hon. Attorney General	Escheated Estate D. D. Harrison	3,731 20	
do	do Mary Ann Poole	897 13	
Division Court Clerks	On account of Fees	8,217 72	
Insurance Companies	do	700 00	
E. Harris	Fee for List of Shareholders Ontario Investment Company	2 60	
W. R. Meredith, M.P.P.	do Dominion Savings & Invest. Society	1 80	
F. B. Leys	do Ontario Loan & Deb. Co. and London Loan Company	4 08	
D. McDonald, D. C. C	Surrogate Fees	27 00	
J. Meek, Acting Sheriff, Port Arthur	Prison Labor	4 95	
N. Flanagan	Fishing Permits, Nepigon River	100 00	
County Treasurers	On account of removal of Lunatics and Prisoners	5,905 78	29,575 26
Insurance Companies	do Assessments	2,999 95	
A. G. Hill, P.M.	Niagara Falls Fines and Forfeitures	309 00	8,905 73
W. Wilson, J.P.	Fitzroy do	2 00	
W. H. Buckerfield, J.P.	Dee Bank do	2 00	
W. Cane, J.P.	Newmarket do	15 00	
Sheriff Co. Carleton	do	95 00	
Sheriff Algoma	do	23 00	
Sheriff Co. Lambton	do	1,000 00	
J. P. Whitney, M.P.P.	Morrisburg do	200 00	
County Attorney	Bruce do	46 55	
do	Wellington do	21 60	
do	Huron do	122 02	
do	Simcoe do	102 39	
do	Carleton do	18 11	
do	Essex do	84 77	
do	Haldimand do	4 59	
do	Renfrew do	243 06	
do	Brant do	9 60	
do	Oxford do	392 00	
do	Elgin do	328 25	
do	Welland do	245 00	
do	Grey do	4 65	
do	Perth do	38 12	
do	Peel do	55 71	
do	Halton do	7 63	
do	Ontario do	20 20	
do	Dufferin do	10 56	
do	Prince Edward do	29 64	
	Carried forward	3,430 45	38,480 99

No. 9.

CASUAL REVENUE—*Continued.*

From Whom Received.	Service.	$ c.	$ c.
	Brought forward	3,430 45	38,480 99
County Attorney	Victoria Fines and Forfeitures	493 63	
do	Lincoln do	7 20	
do	Stormont, Dundas and Glengarry do	18 62	
do	Northumberland and Durham do	9 60	
do	Norfolk do	20 00	
District Attorney	Muskoka do	46 00	
do	Thunder Bay do	5 70	
do	Algoma do	370 00	
			4,401 20
Registrars Co. of York and City of Toronto.	Amount received under 50 Vic., Cap. 15, Sec. 3, to make good the excess of Expenditure over Revenue of County of York Land Titles Office for 1888		1,108 40
Registrar General's office	63 Certificates of Births at $0 50	31 50	
	68 do Marriages " 0 50	34 00	
	159 do Deaths " 0 50	79 50	
	Postage stamps received	06	
			145 06
Provincial Registrar's office	2 Exemplifications of Patents at $8 25	16 50	
	12 Certified copies do " 2 50	30 00	
	2 Certificates do " 0 50	1 00	
	31 Searches " 0 25	7 75	
	Special Copies	5 00	
			60 25
Provincial Secretary's Department	28 Commissions under Great Seal $13 00	364 00	
	98 do Notaries Public 8 00	784 00	
	1 Ferry License	15 00	
	8 Superior Court Certificates $ 4 00	32 00	
	5 Surrogate do 2 00	10 00	
	107 Judicial Notarial do 1 00	107 00	
	6 Declarations 5 00	30 00	
	4 Land Grants 20 00	80 00	
	Charters of Incorporation	4,399 00	
	1 Subpœna	1 00	
	4 Passports $1 00	4 00	
	Searches, etc	25 87	
	Marriage Licenses	2,949 40	
	Special deposit of Fees received prior to 1889	313 27	
			9,114 54
	Total		$53,310 44

Provincial Auditor's Office,
Toronto, February 6th, 1890.

C. H. SPROULE,
Provincial Auditor.

		$ c.	$ c.
1889, January 1st	Balance of Stock on hand, January 1st, 1889		29,575 67
Wm. Barber & Bros	Supplies	2,859 22	
Hunter, Rose & Co	do	2,278 50	
Buntin, Reid & Co	do	2,759 61	
Brown Bros	do	1,541 63	
Underwood & Co	do	110 53	
Barber & Ellis Co	do	460 29	
Grand & Toy	do	259 14	
Warwick & Sons	do	388 40	
A. M. Williams	do	45 00	
H. G. Dunlevie	do	10 00	
McMaster, Darling & Co	do	82 00	
J. Lahue	do	12 00	
Hart & Co	do	6 00	
Aikenhead & Crombie	do	3 70	
H. A. Nelson & Sons	do	80 30	
G. Bengough	do	4 25	
Canada Business University	do	2 50	
Map & School Supply Co	do	20 00	
C. Potter	do	4 00	
Queen's Printer, Ottawa	do	4 25	
P. Paterson & Son	do	7 50	
Rolph, Smith & Co	do	13 50	
Williamson & Co	do	2 20	
W. Simpson	do	12 50	
Wm. Thomson & Co	do	70	
E. Auld	do	50 00	
H. R. Hardy	do	136 50	
G. Rodwell	do	4 00	
Gowans, Kent & Co	do	2 45	
D. S. Barclay	do	8 00	
C. Boeckh & Sons	do	11 20	
Copp, Clark Co	do	22 80	
L. Lyon	do	46 80	
Wyld, Grassett & Darling	do	1 15	
E. Harris & Co	do	7 18	
R. L. Polk & Co	do	40 00	
Office Specialty Co	do	6 60	
E. B. James	do	35 00	
Carswell & Co	do	4 75	
Carried forward		11,344 15	29,575 67

	$ c.	$ c.	$ c.
1889, December 31st. Distribution for the year ending 31st Dec. 1889.			
Civil Government—			
Attorney General's Department	420 72		
Education Department	284 60		
Crown Lands Department	1,964 43		
Public Works Department	188 39		
Treasury Department	185 28		
Provincial Auditor's Office	84 86		
Public Institutions	274 10		
Department of Agriculture	153 81		
Registrar-General's Branch	275 97		
Immigration Department	11 94		
Secretary & Registrar's Department	524 52		
License Branch	113 68		
Board of Health	512 02		
Insurance Office	124 94		
Legislation—		5,122 26	
Stationery, printing and binding	3,057 19		
Expenses	665 32		
Administration of Justice—		3,722 51	
Supreme Court of Judicature	196 39		
Court of Appeal	6 25		
High Court	60 39		
Chancery Division	102 81		
Queen's Bench Division	88 51		
Common Pleas	69 43		
Inspection of Offices under Judicature Act	51 55		
Office of Inspector of Division Courts	110 47		
Seals and other contingencies	3 25		
Constitutional questions	18 91		
Land Titles Act	56 34		
Local Masters of Titles	51 75		
District of Nipissing	98 73		
District of Muskoka	51 06		
District of Parry Sound	83 25		
Education—		1,052 09	
Public Schools	25		
School Inspection	114 82		
Departmental Examinations	556 97		
Normal and Model Schools, Toronto	365 71		
Carried forward	1,037 75	9,896 86	

No. 10.—GOVERNMENT STATIONERY OFFICE.—*Continued.*

		$ c.	$ c.		$ c.	$ c.	$ c.
	Brought forward	11.344 15	29,575 67	*Brought forward*	1,037 75	9,896 86	
J. T. B. Ives	do	9 00		Normal and Model Schools, Ottawa	262 99		
Hart & Co	do	13 55		School of Practical Science	61 25		
W. H. Jagger	do	47 60		Mechanics' Institutes	4 50		
Rowsell & Hutchison	do	4 40		Art Schools, etc	44 29		
Cook & Bunker	do	25		Miscellaneous	395 78		
Tingley-Stewart Mfg. Co.	do	12 70		Public Institutions—		1,746 56	
H. E. Clarke & Co	do	10 50		Asylum for the Insane, Toronto	98 80		
Staunton & McCrae	do	3 00		do London	17 50		
Rice Lewis & Son	do	45		do Kingston	8 75		
E. G. Waterhouse	do	3 00		Central Prison, Toronto	212 33		
A. A. Merrick	do	5 00		Reformatory for Boys, Penetanguishene	77 56		
F. Yeigh	do	8 50		Deaf ad Dumb Institute, Belleville	138 04		
Dominion Express Co	Charges	90		Andrew Mercer Reformatory, Toronto	97 45		
G. T. Railway	Freight Charges	2 98		Immigration—		650 43	
		11,465 98		Incidentals		79 20	
	Less received from sales of stationery	377 01		Agriculture—			
				Incidentals	1,177 29		
				Forestry	78 95		
	Total		11,088 97	Bureau of Statistics	436 57		
						1,692 81	
				Hospitals and Charities		15 08	
				Repairs and Maintenance—			
				Parliament Buildings, Main Building		35 13	
				Consolidation of Statutes		25 92	
				Miscellaneous—			
				Charges on Revenue	59 27		
				Municipal Commission	103 57		
				Mining Commission	4 40		
				Expenses of Elections	30 70		
				Removal of Patients	3 55		
				Factories' Act	5 71		
				Cincinnati Exhibition	3 78		
				North-West Boundary	4 82		
						215 80	
							14,357 79
				Balance stock on hand			26,306 85
	Total		40,664 64	Total			40,664 64

PROVINCIAL AUDITOR'S OFFICE,
Toronto, February 6th, 1890.

C. H. SPROULE,
Provincial Auditor.

EXPENDITURE STATEMENTS.

STATEMENT OF THE EXPENDITURE by the Treasurer of Ontario during the year ended 31st December, 1889.

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	CIVIL GOVERNMENT.				
	LIEUTENANT-GOVERNOR'S OFFICE.				
	SALARIES.				
F. H. C. Law	Twelve months' salary as Official Secretary		1,200 00		
H. E. Harcourt-Vernon	do Private do		800 00		
Thomas Lymer	do Messenger		480 00		
				2,480 00	
	EXPENSES.				
F. H. C. Law	To pay sundries			1,500 00	
	GOVERNMENT HOUSE.				
	EXPENSES.				
D. Falconer	Twelve months' salary as Gardener and Caretaker		500 00		
P. Chambers	do Fireman and Assistant Gardener		550 00		
P. Carpenter	do Assistant Gardener		450 00		
James Exelby	do do		450 00		
				1,950 00	
	EXECUTIVE COUNCIL AND ATTORNEY-GENERAL'S DEPARTMENT.				
	SALARIES.				
Hon. O. Mowat	Twelve months' salary as Attorney-General and Premier		5,000 00		
E. F. B. Johnston	Five and one-half months' salary as Deputy Attorney-General and Clerk of Executive Council		1,375 00		
J. R. Cartwright	Six months' do do do		1,525 00		
	Carried forward		7,900 00	5,930 00	

CIVIL GOVERNMENT.—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	.....	7,960 00	5,930 00	.....
	EXECUTIVE COUNCIL AND ATTORNEY-GENERAL'S DEPARTMENT.—*Continued.*				
	SALARIES—*Continued.*				
A. M. Dymond	Twelve months' salary as Law Secretary	.....	900 00		
S. T. Bastedo	do Clerk and Premier's Secretary	.....	1,600 00		
J. L. Capreol	do Assistant Clerk Executive Council	.....	1,450 00		
M. Currey	do Clerk and Shorthand Writer	.....	1,000 00		
J. McLachlan	do Clerk	.....	750 00		
C. A. Fitch	do do	.....	700 00		
Clarence Bell	do Messenger	.....	350 00		
				14,650 00	
	EXPENSES.				
Warwick & Sons	Printing and binding	196 84			
J. Notman	Stationery	420 72			
Brown Bros	do	4 25			
P. C. Allan	do	20 35			
Rolph, Smith & Co	do	2 75			
C. J. Fox	Inkstands	8 75			
			653 66		
Carswell & Co	Law books	266 86			
Rowsell & Hutchison	do	34 50			
J. A. Gemmill	Parliamentary Companion	2 00			
Hart & Co	Solicitors' Journal	18 00			
			321 36		
C. A. Fitch	Book	1 00			
W. J. Dickson	Almanacs	3 30			
J. Bain & Son	do	6 80			
R. L. Polk & Co	Directories	8 00			
W. Carmichael	Railway Guide	75			
J. T. Robinson	do	2 02			
			21 87		
C. P. R. Telegraph	Messages	73 56			
G. N. W. Telegraph Co	do	102 94			

Bell Telephone Co	Messages	5 45		
Electric Despatch Co	Messenger service	6 30		
Sundry persons	do	7 00		
Verral Cab Co	Cab hire	33 25		
J. McConvey	do	15 25		
Dominion Express Co	Charges	5 00		
			248 75	
G. M. Rose	Postage stamps	260 00		
H. C. Dixon	do	20 00		
			280 00	
J. Underwood & Co	Caligraph supplies	13 10		
Cyclostyle Co	Supplies	7 45		
Geo. Bengough	Typewriter and supplies	53 35		
Richardson & Co	Emery wheel	1 25		
Geo. Slike	Bookholders	1 75		
C. Bell	Mounting map	80		
Law Society	Certificates	17 50		
			95 20	
C. Chase	Six months' services as Housekeeper	250 00		
J. Clark	Services as Fireman	167 00		
			117 00	
J. McLachlan	To pay registration fees *re* Deborah Brown estate	5 75		
J. McLachlan	To pay petty office expenses	86 50		
C. Bell	do do	51 00		
Sundry newspapers	Subscriptions and advertisements	271 85		
			415 10	
				2,452 94

EDUCATION DEPARTMENT.

Salaries.

Hon. G. W. Ross	Twelve months' salary as Minister of Education		4,000 00	
J. G. Hodgins	do Deputy Minister of Education		3,000 00	
Alex. Marling	do Secretary		2,200 00	
F. J. Taylor	do Chief Clerk and Accountant		1,400 00	
H. R. Alley	do Clerk		1,250 00	
J. T. R. Stinson	do do		1,200 00	
H. M. Wilkinson	do do		1,200 00	
A. C. Paull	do do		1,000 00	
F. N. Nudel	do do		1,000 00	
J. H. J. Kerr	do do		750 00	
W. W. Jeffers	do Junior Clerk		700 00	
E. Williams	do do		600 00	
R. J. Bryce	do do and Messenger		600 00	
L. McCorkindale	do Caretaker		500 00	
				19,400 00
	Carried forward			42,432 94

CIVIL GOVERNMENT—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward			42,432 94	
	EDUCATION DEPARTMENT—*Continued.*				
	EXPENSES.				
Warwick & Sons	Printing and binding	357 32			
J. Notman	Stationery	284 60			
G. Walterhouse	do	25			
			642 17		
Rose-Belford Publishing Co.	Books	11 04			
W. Briggs	do	19 70			
J. & A. McMillan	do	7 36			
J. E. Bryant & Co	do	27 50			
D. & J. Sadlier & Co	do	1 62			
Carswell & Co	do	27 75			
Leonard Scott Publishing Co.	do	1 45			
Copp, Clark Co	do	14 19			
T. Pearce	do	1 60			
Iva G. Hoett	do	4 02			
Mrs. Hocking	do	3 75			
D. C. Heath	do	54			
N. Murray	do	1 00			
D. Appleton & Co	do	1 00			
D. T. McAinsh	do	60			
M. Coles	School reports	1 00			
R. W. Douglas & Co.	Pamphlets	10 00			
			134 12		
G. N. W. Telegraph Co	Telegrams	69 07			
C. P. R. Telegraph	do	2 45			
Bell Telephone Co	Messages	1 25			
Sundry persons	Messenger service	5 25			
R. L. Polk & Co	Directories	20 00			
H. C. Dixon	Postage stamps	284 00			
Postmaster	do	2 72			
H. R. Alley	do	56			
			385 30		
Sundry persons	Car tickets	10 05			
Street Railway Co.	do	5 00			
Verral Cab Co.	Cab hire	55 50			

F. Doane	do	89 65		
Shedden Co	Freight charges	38		
P. H. Burton	do	10 00		
Sundry persons	To pay express charges	5 00		
Express Co	Charges	44 45		
Rose Cartage Co	Cartage	50		
Collector of Customs	Duty charges	1 56		
			222 09	
Rolph, Smith & Co	Repairing seal and press	1 50		
L. McCorkindale	Paste	5 00		
			6 50	
J. C. Meiklejohn	Copying	98 00		
G. H. Preston	do	56 00		
D. Boyle	Examining fossils	3 00		
			157 00	
Hon. G. W. Ross	Travelling expenses	60 00		
H. M. Wilkinson	To pay sundries	7 10		
Educational Journal	Advertising	75 00		
Educational Monthly	do	16 00		
Sundry newspapers	Subscriptions and advertisements	160 68		
			318 78	
				1,865 96
	CROWN LANDS DEPARTMENT.			
	SALARIES.			
Hon. T. B. Pardee	One months' salary as Commissioner		333 00	
Hon. A. S. Hardy	Eleven do do		3,667 00	
Aubrey White	Twelve do Assistant Commissioner		2,800 00	
Geo. Kennedy	do do Law Clerk		2,000 00	
J. I. McIntosh	One do Clerk and Shorthand Writer		100 00	
Frank Yeigh	Eleven do do		1,100 00	
	LAND SALES AND FREE GRANTS.			
A. Kirkwood	Twelve months' salary as Chief Clerk		1,900 00	
J. J. Murphy	do Clerk		1,300 00	
Julian Sale	do do		900 00	
E. F. Stowe	Five do do		311 00	
E. S. Williamson	Eight do do		455 00	
J. J. Kelly	Twelve do do		700 00	
	SURVEYS, PATENTS AND ROADS BRANCH.			
Kirkpatrick	Twelve months' salary as Chief Clerk, Surveys		1,900 00	
W. Revell	do do Draughtsman		1,200 00	
J. M. Grant	do do Patents		1,400 00	
	Carried forward		20,066 00	44,298 90

CIVIL GOVERNMENT—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		20,066 00	44,298 90	
	CROWN LANDS DEPARTMENT—*Continued.*				
	Surveys, Patents and Roads Branch—*Continued.*				
P. Alma	Twelve months' salary as Clerk		1,200 00		
W. F. Lewis	do do		950 00		
Henry Smith	do Superintendent Colonization Roads		1,900 00		
C. Cashman	do Clerk		1,150 00		
J. H. Bradshaw	do do		800 00		
	Woods and Forests.				
G. B. Cowper	Twelve months' salary as Chief Clerk		2,000 00		
J. A. G. Crozier	do Clerk		1,350 00		
T. C. Taylor	do do		1,250 00		
H. R. Hardy	do do		1,000 00		
H. E. Rudge	do do		850 00		
P. J. Durkin	do do		700 00		
	Accounts Branch.				
D. G. Ross	Twelve months' salary as Accountant and Book-keeper		1,700 00		
R. H. Browne	do Clerk		1,400 00		
C. P. Higgins	do do		950 00		
E. Leigh	do do		850 00		
J. Morphy	do Registrar		1,600 00		
				39,716 00	
	Expenses.				
Warwick & Sons	Printing and binding	1,086 43			
Copp, Clark Co	Lithographing	6 50			
J. Notman	Stationery	1,964 43			
G. Bengough	do	1 50			
W. E. Spetz	do	4 25			
J. Underwood & Co	do	3 00			

C. J. Fox	do	14 00		
Cyclostyle Co	do	1 60		
A. J. Henderson	Caligraph supplies	16 10		
A. McDonald	Postage stamps, etc	910 00		
			4,007 81	
G. N. W. Telegraph Co	Telegrams	113 63		
C. P. R. Telegraph	do	246 62		
Bell Telephone Co	Messages	1 75		
			362 00	
J. J. Murphy	Books	3 75		
Laird & Lee	do	60		
Williamson & Co	do	1 00		
Methodist Book Room	do	4 50		
D. T. McAinsh	do	4 50		
Rowsell & Hutchison	do	17 00		
W. J. Dickson	Almanacs	5 40		
R. L. Polk & Co	Directories	27 00		
R. Hills	do	3 00		
D. Battersby	Railway Guide	1 50		
Map and School Supply Co	Maps	3 50		
Williamson & Co	do	6 00		
A. A. Grant	Atlas	35 00		
Mortimer & Co	Mounting maps	1 65		
			114 40	
J. Bradshaw	Twelve months' salary as Housekeeper	500 00		
R. Burroughes	Six do Fireman	274 00		
F. Frank	Six do do	230 00		
A. McDonald	Twelve do Clerk and Messenger	550 00		
D. Kinan	do do Night Watchman	500 00		
A. Chesley	Services	6 00		
F. Frank	do acting Messenger and Fireman	265 00		
W. Brown	do	64 50		
W. Galbraith	Tracing plan	3 50		
			2,393 00	
Verral Cab Co	Cab hire	59 50		
C. E. Verral	do "	4 25		
Express Co	Charges	2 50		
Hendrie & Co.	Freight on minerals	21 58		
			87 83	
G. W. Graham	Whisperphone	1 25		
G. Bengough	Typewriter	150 00		
A. J. Henderson	Caligraph	95 00		
			246 25	
Richardson & Schrader	Sharpener	1 25		
J. G. Costinello	Sharpening erasers	30		
			1 55	
	Carried forward		7,212 84	84,014 90

CIVIL GOVERNMENT—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		7,212 84	84,014 90	
	CROWN LANDS DEPARTMENT—*Continued.*				
	EXPENSES—*Continued.*				
Registrar, Co. Simcoe	Copying of abstracts	7 43			
R. G. Foley	Registration fee	1 40			
G. F. Harman	Copy of judgment	1 50			
			10 33		
Canadian R. R. News Co.	Posting maps		9 60		
Hon. A. S. Hardy	Travelling expenses	13 75			
F. Yeigh	do	4 00			
F. Yeigh	To pay petty office expenses	25 00			
			42 75		
Suckling, Cassidy & Co	Fees as Auctioneers	150 00			
Sundry newspapers	Advertising *re* sale of water privileges	213 35			
do	do *re* mining regulations	516 83			
do	do *re* timber sale	1,210 35			
do	Subscriptions and advertisements	311 74			
			2,402 27		
				9,677 79	
	PUBLIC WORKS DEPARTMENT.				
	SALARIES.				
Hon. C. F. Fraser	Twelve months' salary as Commissioner		4,000 00		
Kivas Tully	do Architect		2,400 00		
R. McCallum	do Engineer		1,900 00		
Wm. Edwards	do Secretary		2,000 00		
J. P. Edwards	do Accountant and Law Clerk		1,100 00		
F. R. Heakes	do Architectural Draughtsman		1,200 00		
R. P. Fairbairn	do Engineering do		1,100 00		
T. M. Hennessy	do Assistant Architectural Draughtsman		850 00		
C. G. Horetsky	Nine do do Engineering do		600 00		
M. Wilson	Twelve do First Clerk and Shorthand writer		1,000 00		
S. G. O'Grady	do Clerk and Paymaster		900 00		
C. A. McDonald	do Messenger		550 00		
				17,600 00	

	EXPENSES.				
Warwick & Sons	Printing and binding	357 09			
J. Notman	Stationery	188 39			
Canadian Business University	do	16 00			
H. Jacobs	do	24 00			
J. B. Clougher	do	13 90			
R. J. Fox	do	15 75			
J. G. Ramsey & Co	do	41 25			
Brown Bros	do	15 00			
Hart & Co	do	12 05			
			683 43		
G. M. Rose	Postage stamps	250 00			
G. N. W. Telegraph Co	Telegrams	81 87			
C. P. R. Telegraph	do	19 08			
			350 95		
W. J. Dickson	Almanacs, 1888-9	6 30			
W. H. Irwin & Co	Directories	2 50			
R. Hills	do	3 00			
R. L. Polk & Co	do	8 00			
T. Robinson	Railway Guide	1 00			
A. H. Douglas	Book, Treatment of Sewage	2 60			
W. Powis	Interest Tables	4 00			
			27 40		
A. J. Henderson	Caligraph	112 25			
Geo. Bengough	Typewriting supplies	38 80			
Cyclostyle Co	Supplies	11 90			
G. F. Dow	Dating stamp	9 00			
J. Foster	Tape lines, level, etc	13 00			
C. Potter	Squares, etc	5 70			
M. O'Connor	Plate glass	12 00			
			202 65		
Verral Cab Co	Cab hire	68 25			
Street Railway Co	Car tickets	80 00			
Express Co	Charges	1 05			
			149 30		
G. Edwards	Services as extra clerk	16 00			
Sundry persons	Messenger service	20 68			
			36 68		
W. Edwards	Sundry petty office expenses	5 55			
Sundry newspapers	Subscriptions and advertisements	119 91			
			125 46		
				1,575 87	
	TREASURY DEPARTMENT.				
	SALARIES.				
Hon. A. M. Ross	Twelve months' salary as Treasurer		4,000 09		
D. E. Cameron	do Assistant Treasurer		2,200 00		
F. A. Carrell	do Chief Clerk		1,300 00		
	Carried forward		7,500 00	112,868 56	

CIVIL GOVERNMENT—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		7,500 00	112,868 56	
	TREASURY DEPARTMENT—*Continued.*				
	SALARIES—*Continued.*				
W. N. Douglas	Twelve months' salary as Clerk		900 00		
T. J. Wells	do do		650 00		
L. V. Percival	do Clerk and Shorthand Writer		1,200 00		
W. C. Noxon	do do Cashier		1,000 00		
J. J. Walsh	do Messenger		300 00		
				11,550 00	
	EXPENSES.				
Warwick & Sons	Printing and binding	201 93			
Rolph, Smith & Co	Lithographing, etc	39 50			
J. Notman	Stationery	185 28			
Underwood & Co	do	1 00			
F. Cudney	do	8 50			
C. J. Fox	do	17 50			
Brown Bros	do	2 50			
G. F. Dow	Rubber stamps	17 50			
			473 71		
W. C. Noxon	Postage stamps	10 55			
G. M. Rose	do	543 00			
G.N.W. Telegraph Co	Telegrams	41 14			
C.P.R. Telegraph	do	13 55			
Bell Telephone Co.	Messages	75			
Sundry persons	Messenger service	6 50			
			615 49		
W. J. Dickson	Almanacs	3 60			
R. L. Polk & Co	Directories	16 00			
C. R. Chisholm & Co	Railway Guide	2 00			
W. Carmichael	do	75			
W. E. Watson	Valuation tables	10 00			
A. A. Grant	Bankers' and Brokers' atlas	35 00			
			67 35		

Rolph, Smith & Co	Cheque books	54 00		
W. Powis	Interest Tables	4 00		
			58 00	
Warwick & Sons	Letter press	21 00		
Geo. Slike	Whisperphone	1 25		
G. Bengough	Typewriter supplies	2 10		
			24 35	
Verral Cab Co	Cab hire		67 75	
A. McDonell	Services as Housekeeper	200 00		
J. J. Ryan	do Fireman	250 00		
John Ryan, Sr	do Acting Fireman	18 75		
			468 75	
T. J. Wells	To pay sundries		6 00	
Guarantee Co	Half premium on bonds of Assistant Treasurer and Cashier		37 50	
Sundry newspapers	Subscriptions		143 00	
				1,961 90
	PROVINCIAL AUDIT OFFICE.			
	SALARIES.			
C. H. Sproule	Twelve months' salary as Provincial Auditor		2,400 00	
A. J. Rattray	do Book-keeper		1,300 00	
T. P. Stewart	do Clerk		800 00	
W. W. Wood	do do		800 00	
				5,300 00
	EXPENSES.			
Warwick & Sons	Printing and binding	59 30		
J. Notman	Stationery	84 86		
E. Hastings	do	2 25		
G. Slike	do	65		
C. J. Fox	do	5 25		
Cyclostyle Co	do	2 75		
G. F. Dow	Rubber stamps	6 00		
			161 06	
G. M. Rose	Postage stamps	60 00		
G.N.W. Telegraph Co	Telegrams	1 14		
Bell Telephone Co	Messages	1 63		
Sundry persons	Messenger service	3 50		
			66 27	
W. J. Dickson	Almanacs	1 20		
R. L. Polk & Co	Directory	4 00		
J. T. Robinson	Railway Guide	1 00		
W. Powis	Interest Tables	4 00		
			10 20	
	Carried forward		237 53	131,680 46

CIVIL GOVERNMENT—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		237 53	131,680 46	
	PROVINCIAL AUDIT OFFICE—*Continued.*				
	EXPENSES—*Continued.*				
Verral Cab Co	Cab hire	3 00			
Street Railway Co	Car tickets	10 00			
			13 00		
C. H. Sproule	Travelling expenses	52 10			
T. P. Stewart	do	14 35			
			66 45		
W. Drummond	Services as extra Clerk	373 00			
J. Purkis	do do	68 00			
J. J. Walsh	Extra services as Messenger	20 00			
			461 00		
Richardson & Co	Sharpener		1 25		
Sundry newspapers	Subscriptions		19 02		
				798 25	
	PUBLIC INSTITUTIONS.				
	SALARIES.				
W. T. O'Reilly	Twelve months' salary as Inspector		2,200 00		
R. Christie	do do		2,200 00		
H. Hayes	Four do Chief Clerk		467 00		
J. Mann	Eight do do		800 00		
J. Mann	Four do Clerk		333 00		
J. Lahmer	Eight do do		433 33		
F. M. Nicholson	Twelve do Shorthand writer		1,016 66		
J. O'Shea	do Messenger		300 00		
				7,749 99	
	EXPENSES.				
Warwick & Sons	Printing and binding	553 63			
J. Notman	Stationery	274 10			
C. J. Fox	do	7 00			
			834 73		

M. Hubertus	Postage stamps	290 00		
G. E. Lumsden	do	75 00		
G. N. W. Telegraph Co	Telegrams	70 81		
C. P. R. Telegraph	do	32 98		
Bell Telephone Co	Messages	36 32		
Sundry persons	Messenger service	5 50		
			510 61	
R. L. Polk & Co.	Directories	12 00		
W. J. Dickson	Almanacs	90		
E. Hart & Co	Books	7 75		
			20 65	
R. Christie	Travelling expenses	278 35		
W. T. O'Reilly	do	449 45		
F. M. Nicholson	do	74 55		
J. Mann	do	23 85		
			826 20	
Verral Cab Co	Cab hire		101 50	
J. Mann	Petty office expenses	15 00		
J. Lahmer	do	15 00		
			30 00	
Bradstreet Commercial Ag'ncy	Subscription	16 66		
National Prison Association	do	15 00		
			31 66	
H. E. Clarke & Co	Despatch bag		14 00	
Sundry newspapers	Subscriptions		22 00	
				2,391 35
	DEPARTMENT OF AGRICULTURE.			
	SALARIES.			
Hon. C. Drury	Twelve months' salary as Commissioner		4,000 00	
A. Blue	do Assistant Commissioner and Secretary Bureau of Industries		2,200 00	
W. F. McMaster	do Assistant Secretary		1,650 00	
W. O. Galloway	do Clerk		1,100 00	
D. J. Johnston	do do		850 00	
N. J. Clarke	do do		850 00	
D. J. O'Donoghue	do do		800 00	
T. McGillicuddy	do do		800 00	
W. B. Varley	do do and Shorthand Writer		650 00	
Thos. Lynch	Six do Messenger		225 00	
				13,125 00
	EXPENSES.			
Warwick & Sons	Printing and binding	145 16		
J. Notman	Stationery	153 81		
Grand & Toy	do	1 50		
	Carried forward	298 47		155,745 05

CIVIL GOVERNMENT—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	298 47		155,745 05	
	DEPARTMENT OF AGRICULTURE—*Continued.*				
	EXPENSES—*Continued.*				
C. J. Fox	Stationery	8 75			
J Underwood	do	8 75			
Brown Bros	do	50			
Canada Business University	do	1 50			
Tingley Stewart Mfg. Co	Rubber stamps	14 25			
			332 22		
G. M. Rose	Postage stamps	291 00			
G. N. W. Telegraph Co	Telegrams	38 83			
C. P. R. Telegraph	do	14 81			
Bell Telephone Co	Messages	1 55			
Electric Despatch Co	Messenger service	30			
			346 49		
W. J. Dickson	Almanacs	1 20			
Union Publishing Co	Directories	2 00			
A. A. Grant	Banker and Broker's Atlas	35 00			
Williamson & Co	Books	5 25			
Warwick & Sons	do	6 75			
Canada Subscription Co	do	21 00			
			71 20		
A. J. Henderson	Caligraph, etc		109 95		
W. B. Varley	Petty office expenses	13 23			
A. Blue	To pay sundries	5 50			
			18 73		
Express Co	Charges	3 60			
G. T. Ry. Co	Freight charges	2 11			
C. P. Ry. Co	do	1 08			
			6 79		
Hon. A. M. Ross	Travelling expenses 1887-8	38 00			
Hon. C. Drury	do	165 00			
			203 00		
G. B. Brown	Copies of judgments		7 09		
F. W. Donaldson	Services as Fireman		200 00		
Sundry newspapers	Subscriptions		80 35		
				1,375 73	

REGISTRAR-GENERAL'S BRANCH.

Salaries.

H. S. Crewe	Twelve months' salary as First Clerk		1,400 00	
F. Warwick	do Second Clerk		1,000 00	
J. McG. Ridley	do Clerk		900 00	
T. F. Callaghan	do do		900 00	
C. M. Pardee	do do		900 00	
F. Jones	do do		800 00	
C. S. Horrocks	do do		650 00	
				6,550 00

Expenses.

Warwick & Sons	Printing and binding	1,776 54		
J. Notman	Stationery	275 97		
C. J. Fox	do	15 75		
			2,068 26	
G. M. Rose	Postage stamps	323 00		
G.N.W. Telegraph Co	Telegrams	4 42		
C.P.R. Telegraph	do	1 28		
			328 70	
W. J. Dickson	Almanacs	1 80		
R. L. Polk & Co	Directories	8 00		
			9 80	
Verral Cab Co	Carriage of parcels, etc	2 25		
W. Bacon	do do	17 50		
			19 75	
D. Patterson	Services as Registrar in unorganized districts	26 00		
T. Collins	do do	7 40		
W. Harris	do do	7 50		
C. H. Chase	Services as Housekeeper	250 00		
E. Clarke	do Messenger	96 00		
J. Clarke	do Fireman	167 00		
			553 90	
H. S. Crewe	Travelling expenses		163 95	
Richardson & Co	Sharpener		1 25	
Canadian Health Journal	Subscription	10 00		
Sundry newspapers	Advertising	16 80		
			26 80	
				3,172 41

IMMIGRATION DEPARTMENT.

Salaries.

D. Spence	Twelve months' salary as Secretary			1,300 00
	Carried forward			168,143 19

CIVIL GOVERNMENT—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward			168,143 19	
	IMMIGRATION DEPARTMENT—*Continued.*				
	EXPENSES.				
Warwick & Sons	Printing and binding	26 61			
J. Notman	Stationery	14 94			
C. J. Fox	do	5 25			
			46 80		
G. M. Rose	Postage stamps	35 00			
G.N.W. Telegraph Co	Telegrams	17 67			
C.P.R. Telegraph	do	13 70			
Bell Telephone Co	Messages	85			
			67 22		
W. J. Dickson	Almanacs	2 10			
R. L. Polk & Co	Directories	8 00			
J. T. Robinson	Railway Guide	1 00			
			11 10		
Street Railway Co	Car tickets		18 55		
G. F. Bostwick	Letter file		2 50		
Cook & Bunker	Repairing stamp		2 50		
D. Spence	To pay sundries		15 99		
Sundry newspapers	Subscriptions		28 00		
				192 66	
	SECRETARY AND REGISTRAR'S DEPARTMENT.				
	SALARIES.				
Hon. A. S. Hardy	One months' salary as Secretary and Registrar		333 00		
Hon. J. M. Gibson	Eleven do do		3,667 00		
G. E. Lumsden	Twelve do Assistant Secretary		2,200 00		
J. B. McLachlan	do do Clerk		1,150 00		
J. D. Warde	do do do		1,000 00		
L. H. Irving	do do do		950 00		
J. F. C. Ussher	do do Deputy Registrar		1,400 00		
Geo. Hobbs	do do Clerk		900 00		
E. Jenkinson	do do do		850 00		
F. Yeigh	One do Shorthand Writer		100 00		

J. I. McIntosh	Eleven do	do		1,100 00	
R. A. Eaton	Twelve do	Engrossing Clerk		650 00	
A. Burtchael	do do	Messenger		450 00	
					14,750 00
	EXPENSES.				
Warwick & Sons	Printing and binding		985 13		
Copp, Clark Co'y	Lithographing		2 50		
J. Notman	Stationery		524 52		
Geo. Bengough	do		3 80		
J. Underwood	do		1 00		
Copp, Clark Co'y	do		2 00		
Rolph, Smith & Co	do		2 50		
C. J. Fox	do		5 25		
Brown Bros	do		2 75	1,536 95	
Stewart & Tingley Mfg. Co.	Rubber stamps		7 50		
G. M. Rose	Postage stamps		575 58		
G.N.W. Telegraph Co	Telegrams		62 96		
C.P.R. Telegraph	do		19 63		
Sundry persons	Messenger service		5 00	663 17	
W. J. Dickson	Almanacs		1 20		
R. L. Polk & Co	Directories		12 00		
W. H. Irwin	Directory		2 50		
J. Lovell & Son	Gazetteer		5 00		
J. I. McIntosh	Railway Guide		75		
H. J. Lemieux	House of Commons Debates		7 00		
Rowsell & Hutchison	Law books		3 00		
Williamson & Co	Dictionary		3 50		
C. L. Heitman	Map and atlas		13 00	47 95	
Geo. Bengough	Typewriter, etc		167 00		
G. W. Graham	Whisperphone		1 25		
Richardson & Co	Sharpener		1 25		
H. E. Clarke & Co	Boxes for papers		3 00	172 50	
Geo Craig	Services as Shorthand Writer		624 00		
F. J. Glackmeyer	do Clerk		101 50		
A. McDonell	do Housekeeper		200 00		
J. J. Ryan	do Fireman		260 00		
J. Ryan, sr	do Acting Fireman		18 75	1,204 25	
Verral Cab Co	Cab hire		52 85		
R. Bond	do		1 50	54 35	
	Carried forward			3,679 17	183,085 85

CIVIL GOVERNMENT—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		3,679 17	183,085 85	
	SECRETARY AND REGISTRAR'S DEPARTMENT—*Continued.*				
	EXPENSES—*Continued.*				
Hon. A. S. Hardy	Travelling expenses, 1888	28 37			
J. I. McIntosh	do	1 50			
			29 87		
J. B. McLachlan	Sundry petty office expenses		30 24		
Bradstreet Com. Agency	Subscription		16 68		
Sundry newspapers	Subscriptions		112 25		
				3,868 21	
	LICENSE AND ADMINISTRATION OF JUSTICE ACCOUNTS BRANCH.				
	SALARIES.				
H. Totten	Twelve months' salary as First Officer		1,900 00		
T. Botham	do Accountant and Provincial Inspector		1,400 00		
J. F. Mowat	do do		1,400 00		
E. A. McLaurin	do Clerk		1,300 00		
F. X. Korman	do do		900 00		
				6,900 00	
	EXPENSES.				
Warwick & Sons	Printing and binding	7 44			
J. Notman	Stationery	113 68			
W. E. Spetz	do	5 00			
C. J. Fox	do	10 50			
Tingley & Stewart Mfg. Co	Rubber stamp	1 00			
S. W. Johnston	Lithogram composition	9 30			
			146 92		
G. M. Rose	Postage stamps	381 34			
G. N. W. Telegraph Co	Telegrams	18 18			
C. P. R. Telegraph	do	9 83			
			409 35		

W. J. Dickson	Almanacs	1 15			
R. L. Polk & Co	Directory	4 00			
W. Carmichael	Railway Guide	75			
Carswell & Co	Law books	15 55			
			21 45		
H. E. Clarke & Co	Boxes for papers	9 25			
Geo. Fogg	do	1 25			
Richardson & Co	Sharpener	1 25			
			11 75		
E. Dickie	Services as Clerk		66 66		
Verral Cab Co	Cab hire		5 00		
G. F. Harman	Copy of judgment		1 42		
E. Dickie	To pay duty charges		95		
E. A. McLaurin	Sundry petty office expenses		5 80		
Sundry newspapers	Subscriptions		11 00		
				680 30	
	PROVINCIAL BOARD OF HEALTH.				
	SALARIES.				
F. Rae, M.D	Twelve months' salary as Chairman		400 00		
P. H. Bryce, M.D	do Secretary		1,750 00		
W. H. H. Mussen	do Clerk		900 00		
G. A. Dorian	do do		800 00		
T. Lynch	Six do Messenger		225 00		
				4,075 00	
	EXPENSES.				
Warwick & Sons	Printing and binding	872 08			
J. Notman	Stationery	512 02			
C. J. Fox	do	3 50			
			1,387 60		
G. M. Rose	Postage stamps	195 00			
G. N. W. Telegraph Co	Telegrams	32 51			
C. P. R. Telegraph	do	4 46			
Bell Telephone Co	Messages	1 68			
			233 65		
W. J. Dickson	Almanacs	1 20			
R. L. Polk & Co	Directories	8 00			
Williamson & Co	Book	6 00			
E. Steiger & Co	Hygiene books	11 48			
			26 68		
J. J. Cassidy, M.D	Allowance and expenses Board meetings	90 12			
H. P. Yeomans, M.D	do do	135 87			
	Carried forward	225 99	1,647 93	198,609 36	

CIVIL GOVERNMENT—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	225 99	1,647 93	198,609 36	
	PROVINCIAL BOARD OF HEALTH—*Continued.*				
	EXPENSES—*Continued.*				
C. W. Covernton, M.D	Allowance and expenses Board meetings	60 00			
H. Mackay, M.D	do do	118 27			
J. D. Macdonald, M.D	do do	118 00			
			522 26		
A. J. Henderson	Copying	11 05			
F. W. Donaldson	Services as Fireman	196 69			
			207 74		
Republican Press Association	Sanitary papers	15 00			
P. S. King & Son	do	53 08			
J. F. Edwards	do	2 00			
M. Mason	do	4 02			
A. L. Hummel	do	5 10			
J. E. Bryant & Co	do	3 00			
			82 20		
A. J. Henderson	Caligraph stand, etc		8 50		
Express Co	Charges		2 30		
F. Rae, M.D	Travelling expenses	8 42			
P. H. Bryce	do	171 76			
			180 18		
P. H. Bryce	Sundry petty office expenses		9 45		
Sundry newspapers	Subscriptions and advertisements		17 76		
				2,678 32	
	MISCELLANEOUS				
	OFFICIAL GAZETTE.				
Warwick & Sons	Printing		1,964 62		
	QUEEN'S PRINTER.				
	SALARIES.				
J. Notman	Twelve months' salary as Queen's Printer	1,300 00			
G. E. Thomas	do Assistant Queen's Printer	1,000 00			

	EXPENSES.				
Warwick & Sons	Printing	16 16			
Copp, Clark Co	Paper weighing machine	19 00			
W. Drummond	Services *re* stock taking	156 00			
			2,491 16		
	INSPECTION OF REGISTRY OFFICES.				
Hon. S. Smith	Three months' salary as Inspector	375 00			
E. F. B. Johnston	Nine do do	1,125 00			
Hon. S. Smith	Travelling expenses	100 00			
E. F. B. Johnston	do	300 00			
			1,900 00		
	INSPECTION OF INSURANCE COMPANIES.				
	SALARIES.				
J. H. Hunter	Twelve months' salary as Inspector	2,200 00			
T. M. Simons	do Clerk	700 00			
	EXPENSES.				
Warwick & Sons	Printing and binding	406 08			
J. Notman	Stationery	124 94			
S. W. Johnston	Lithogram composition	2 40			
G. M. Rose	Postage stamps	23 50			
G. N. W. Telegraph Co	Telegrams	1 83			
C. P. R. Telegraph	do	1 16			
W. J. Dickson	Almanacs	1 20			
R. L. Polk & Co	Directory	4 00			
J. D. Warde	Joint Stock Manual	2 00			
W. Powis	Sinking Fund Tables	4 00			
J. Lahmer	Services during illness of Mr. Simons	119 00			
Verral Cab Co	Carriage of parcels	75			
Rose Cartage Co	do	50			
Express Co	Charges	25			
J. H. Hunter	Travelling expenses	424 66			
T. M. Simons	Sundry petty office expenses	1 75			
Dun, Wiman & Co	Subscription to Mercantile Agency	60 00			
do	do do and Test Record	10 00			
Sundry newspapers	Subscriptions	30 20			
			4,118 22		
				10,474 00	
	Total Civil Government				211,761 68
	Carried forward				211,761 68

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward				211,761 68
	LEGISLATION.				
	SALARIES.				
Hon. J. Baxter	Services as Speaker		1,250 00		
C. T. Gilmor	Twelve months' salary as Clerk of House		1,800 00		
A. H. Sydere	do Assistant Clerk of House		1,400 00		
J. R. Cartwright	do Law Secretary		1,000 00		
J. M. Delamere	do Clerk and Postmaster		1,000 00		
W. Houston	do Librarian		1,600 00		
E. Holmes	do Assistant Librarian		750 00		
J. Notman	do Accountant		400 00		
F. J. Glackmeyer	Services as Sergeant at Arms		600 00		
P. O'Brien	Twelve months' salary as Housekeeper and Chief Messenger		600 00		
W. Kennedy	do Messenger		450 00		
M. Bailey	do do		450 00		
V. P. Fyle	do do		550 00		
B. McCoy	do do		450 00		
W. Young	Seven do do		350 00		
J. Fahey	Twelve do do		450 00		
J. Wells	do Night Watchman		500 00		
				13,600 00	
	SESSIONAL WRITERS, MESSENGERS AND PAGES.				
F. J. Joseph	Services as Writer		450 00		
R. A. Kent	do		450 00		
J. G. Rosseau	do		360 00		
P. Duggan	do		336 00		
S. J. Crosby	do		186 00		
A. Robertson	do		562 50		
W. Andrus	do		122 00		
F. H. Annes	do		122 00		
W. H. Burr	do		122 00		
L. N. Castanier	do		122 00		

P. De Cantillon	do		122 00		
D. Dronillard	do		122 00		
M. Dennis	do		122 00		
J. J. Dixon	do		122 00		
C. Gorrell	do		122 00		
J. Henry	do		122 00		
J. Kingston	do		122 00		
O. F. Kinseley	do		122 00		
J. Lahmer	do		132 00		
J. Lyon	do		122 00		
J. Lenihan	do		122 00		
J. B. McEwan	do		122 00		
A. McLaren	do		122 00		
D. McElheron	do		122 00		
J. C. McDonald	do		122 00		
W. Y. Martin	do		122 00		
T. P. Morgan	do		122 00		
D. B. Nighswander	do		122 00		
R. Patching	do		152 50		
E. Quesnel	do		122 00		
G. E. Reesor	do		122 00		
W. Robertson	do		122 00		
D. B. Wilie	do		122 00		
A. Wereley	do		122 00		
E. Hunt	do		122 00		
A. M. Dymond	do		183 00		
Sundry persons	do		175 00		
A. Blais	do		110 00		
H. J. Spence	do		82 00		
A. Roberts	do		17 50		
L. V. Percival	Services as Reporter		40 00		
F. A. Ackland	do		133 50		
J. McGrath	Services as Messenger		15 00		
H. Brophy	do		18 00		
P. Aylward	do		88 50		
A. R. Bingham	do		118 00		
G. A. Bobier	do		88 50		
W. S. Dunnett	do		88 50		
J. W. Dyson	do		88 50		
T. Fitch	do		88 50		
J. Gorrie	do		140 00		
M. Healey	do		112 50		
T. Habmon	do		88 50		
R. Kilgour	do		88 50		
R. McBride	do		88 50		
J. Montgomery	do		88 50		
T. Newton	do		88 50		
A. Smart	do		88 50		
J. A. Welch	do		118 00		
		Carried forward	8,159 00	13,600 00	211,761 68

LEGISLATION—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		8,159 00	13,600 00	211,761 68
	SESSIONAL WRITERS, MESSENGERS AND PAGES—*Continued.*				
L. Harcourt	Services as Messenger		61 50		
T. McMonagle	do		88 50		
E. B. Corlett	Services as Page		44 25		
P. Holmes	do		44 25		
H. Lake	do		44 25		
C. M. McMaster	do		44 25		
W. O'Brien	do		44 25		
J. Rear	do		44 25		
F. Smith	do		44 25		
J. Whitby	Services as Fireman		12 00		
W. G. Pyatt	do		88 50		
J. Routledge	do		88 50		
J. Murphy	do		88 50		
D. Crowe	do		88 50		
				8,984 75	
	POSTAGES AND COST OF HOUSE POST OFFICE.				
G. M. Rose	Postage stamps	1,016 00			
H. C. Dixon	do	2,345 00			
D. Spence	do	55 00			
T. C. Patteson	do	18 96			
			3,434 96		
C. W. Allen & Co	Letter bags		2 50		
Street Railway Co	Car tickets		15 00		
J. Power	Carriage of mails		405 00		
				3,857 46	
	STATIONERY, PRINTING AND BINDING.				
Warwick & Sons	Printing and binding		18,803 43		
W. Barber & Bros	Paper	3,481 60			
J. Notman	Stationery	3,057 19			
Hunter, Rose & Co.	do	257 25			
Warwick & Sons	do	232 39			
			7,028 43		
Rose Cartage Co	Cartage		14 00		
Mail Printing Co	Advertising *re* tenders for printing		9 00		
				25,854 86	

PRINTING BILLS AND DISTRIBUTING STATUTES.

Warwick & Sons	Printing		3,014 05		
Canadian Express Co	Charges	125 09			
Dominion do	do	17 85			
G. M. Rose	Postage stamps	249 00			
Toronto Street Railway Co	Car tickets	10 00			
G. E. Thomas	To pay express charges, car fares, etc	9 90	411 84		
				3,425 89	

LIBRARY.

W. J. Gage & Co	Books	23 06			
J. Britnell	do	112 20			
Williamson & Co	do	717 55			
G. R. Lansfield	do	10 00			
Standard Publishing Co	do	6 60			
J. B. Clougher	do	18 25			
J. E. Bryant & Co	do	28 50			
D. Appleton & Co	do	30 00			
Canadian Publishing Co	do	14 80			
F. Yeigh	do	63 75			
W. J. Whitby	do	34 90			
Presbyterian News Co	do	3 50			
J. J. Murphy	do	34 60			
M. Wilson	do	60			
A. J. Burns	do	6 50			
J. D. Warde	do	3 00			
Geo. Virtue	do	34 50			
A. F. Dwyer	do	7 50			
J. E. Hansford	do	4 00			
D. B. Wylie	do	20			
H. B. McNaughton	do	43 25			
F. Porter	do	5 25			
Rowsell & Hutchison	do	103 60			
Hart & Co	do	33 90			
A. Lightbody	do	10 00			
A. H. Todd	do	36 50			
W. Young	do	3 00			
W. F. Munro	do	5 00			
W. H. Poole	do	3 00			
Carswell & Co	do	207 95			
R. W. Douglas & Co	do	3 00			
J. J. Sidey	do	8 00			
W. Powis	do	4 00			
J. L. Stewart	do	3 50			
W. Briggs	do	7 20			
B. W. Munro	do	3 00			
			1,634 16		
	Carried forward		1,634 16	55,722 96	211,761 68

LEGISLATION—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		1,634 16	55,722 96	211,761 68
	LIBRARY—*Continued.*				
W. J. Dickson	Almanacs	1 80			
R. L. Polk & Co	Directories	12 00			
Union Publishing Co	do	30 00			
W. H. Irwin & Co	do	4 50			
R. Hills	do	3 00			
P. C. Allan	Periodicals	379 00			
L. J. Casault	Pamphlets	12 00			
W. Briggs	do	1 13			
Gazette Printing Co	Law Reports	68 00			
H. R. Hardy	Law list	1 00			
Rowsell & Hutchison	Binding Law reports	1 80			
Warwick & Sons	Stamping and binding	145 93			
Express Co	Charges	10 50			
Verral Cab Co	Carriage of paper	75			
G. F. Dow	Stamp	50			
G. M. Rose	Postage stamps	200 00			
American Science Association	Membership fee	8 00			
D. Boyle	Services *re* catalogue	72 00			
E. Holmes	To pay freight, express charges, etc	27 30			
Sundry newspapers	Subscriptions	65 90			
			1,045 11		
				2,679 27	
	INDEMNITY TO MEMBERS.				
John Notman	To pay Members			55,378 00	
	EXPENSES.				
Canadian Express Co	Charges	645 85			
Dominion Express Co	do	15 90			
Vickers' Express Co	do	12 55			
Rose Cartage Co.	Cartage	172 75			

Verral Transfer Co	do	93 25				
R. McBride	do	2 75				
C. W. Irwin	Duty and freight charges	25 78				
G. T. Railway	Freight charges	1 75				
			970 58			
G. N. W. Telegraph Co	Telegrams	21 64				
Bell Telephone Co	Messages	44 65				
R. L. Polk & Co	Directories	12 00				
J. Notman	Stationery	665 32				
Williamson & Co	Stationery, books, etc	174 70				
			918 31			
W. Young	Services as Messenger	46 00				
J. Whitby	do Fireman	91 50				
A. Smart	do do	30 00				
W. G. Pyatt	do do	87 00				
T. Newton	do do	22 50				
J. Routledge	do do	292 50				
A. Gayfer	do do	144 00				
J. Murphy	do do	234 00				
D. Crowe	do do	87 00				
J. Kanaen	do do	20 00				
James Stephen	Police service	20 00				
			1,074 50			
Rowsell & Hutchison	Copies of History of Canada	315 00				
do	do Read's Lives of the Judges	300 00				
do	do Amendments to Statutes of Ontario	100 00				
A. H. Todd	do Todd's Government in England	693 50				
E. B. Biggar	do Hand book of the Dominion	50 00				
Mrs. M. E. Lauder	Books	150 00				
			1,608 50			
Verral Cab Co	Cab hire	107 50				
F. J. Glackmeyer	To pay cab hire	61 25				
Street Railway Co	Car tickets	18 00				
			186 75			
R. M. Williams	Engrossing		5 50			
W. Kennedy	Flour for paste		10 00			
Telegraph Operators	Meals		88 40			
Stowell & Co	Repairing and cleaning official robes		16 75			
W. Wharin	Cleaning mace		4 00			
W. Anglin	Expenses as witness *re* Public Accounts Committee		17 30			
P. O'Brien	Car tickets, telegrams, etc		20 00			
Sundry newspapers	Advertising *re* toll roads		114 00			
do	Subscriptions and advertisements		1,123 87			
				6,158 46		
	Total Legislation				119,938 69	
	Carried forward				331,700 37	

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	.....	.....	....	331,700 37
	ADMINISTRATION OF JUSTICE.				
	SUPREME COURT OF JUDICATURE.				
Hon. J. Hagarty	Chief Justice of Ontario, allowance granted, 3 Vic. cap. 5	1,000 00			
Hon. W. Proudfoot.....	Judge of Ontario, Chancery do	1,000 00			
Hon. G. W. Burton	do Appeal do	1,000 00			
Hon. J. D. Armour.....	do Queen's Bench do	1,000 00			
Hon. Sir T. Galt	do Common Pleas do	1,000 00			
Hon. F. Osler	do do do	1,000 00			
			6,000 00		
	SALARIES.				
Alex. Grant	Twelve months' salary as Registrar Supreme Court and Court of Appeal..	2,000 00			
R. G. Dalton.....	do Master in Chambers	3,800 00			
F. Arnoldi	do Clerk	1,200 00			
A. Y. Blain....	do Entering Clerk	700 00			
M. B. Black.....	Two do Copying do	93 00			
Thos. Hodgins....	Twelve do Master in Ordinary...	3,800 00			
N. McLean	do Chief Clerk	1,450 00			
A. E. Bastedo.....	do Shorthand Writer	800 00			
J. H. Thom.....	do Taxing Officer	1,800 00			
S. B. Clark.....	do do	1,600 00			
			17,243 00		
	EXPENSES.				
Warwick & Sons	Printing and binding	46 18			
J. Notman	Stationery.....	196 39			
C. J. Fox	do	3 50			
G. F. Dow	do	5 50			
G. M. Rose	Postage stamps.....	43 00			
Carswell & Co.....	Law books, etc	33 00			

Rowsell & Hutchison	do	5 70			
H. J. Emerson	Services as Shorthand Writer	20 00			
S. J. Crosby	do Extra Clerk	200 00			
			553 27		
				23,796 27	
	COURT OF APPEAL.				
	SALARIES.				
C. S. Grant	Engrossing orders, etc	914 97			
Eli Oliver	Twelve months' salary as Usher and Messenger	600 00			
			1,514 97		
	EXPENSES.				
Warwick & Sons	Printing and binding	80			
J. Notman	Stationery	6 25			
C. J. Fox	do	5 25			
Rowsell & Hutchison	do etc	29 65			
do	Binding Law reports, etc.	58 55			
Hon. F. Osler	Grant to Library, 1888-9	200 00			
A. Grant	Postage, telegrams, etc	41 50			
Warwick & Sons	Advertising in *Gazette*	1 50			
			343 50		
				1,858 47	
	HIGH COURT.				
	SALARIES.				
W. B. Heward	Twelve months' salary as Clerk of Process	2,000 00			
C. A. Steward	do Clerk	950 00			
G. B. Nicol	do Clerk of Assize	1,050 00			
			4,000 00		
	EXPENSES.				
Warwick & Sons	Printing and binding	182 55			
do	Procedure and Judgment books	1,543 35			
J. Notman	Stationery	60 39			
C. J. Fox	do	5 25			
G. M. Rose	Postage stamps	19 00			
Rowsell & Hutchison	Dictionary	7 50			
W. B. Heward	Law stamp	10 00			
G. B. Nicol	Petty office expenses	24 00			
			1,852 04		
				5,852 04	
	Carried forward			31,506 78	331,700 37

ADMINISTRATION OF JUSTICE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward			31,506 78	331,700 37
	CHANCERY DIVISION.				
	SALARIES.				
G. S. Holmested	Twelve months' salary as Registrar and Judgment Clerk	2,100 00			
A. F. Maclean	do Assistant do	1,600 00			
W. O'Neill	do Entering Clerk	750 00			
G. M. Lee	do Clerk of Records and Writs	1,450 00			
A. J. Elliot	do Clerk	750 00			
M. B. Black	Ten do Copying Clerk	457 00			
A. McGregor	Two do do	35 00			
R. Parkes	Twelve do Usher	600 00			
D. W. Sutherland	do Messenger and Housekeeper	400 00			
C. Sutherland	do Assistant do	250 00			
J. L. Robinson	do Surrogate Clerk	2,000 00			
F. A. Robinson	do Clerk	650 00			
			11,042 00		
	EXPENSES.				
Warwick & Sons	Printing and binding	221 07			
J. Notman	Stationery	102 81			
C. J. Fox	do	3 50			
A. J. Henderson	Caligraph supplies	20 50			
Cook & Bunker	Rubber stamps	11 00			
G. S. Holmested	Postage, telegrams, etc	6 35			
G. S. Holmested	Grant to Library	200 00			
Mrs. C. Sutherland	Bonus to Assistant Housekeeper	30 00			
			595 23		
				11,637 23	
	QUEEN'S BENCH DIVISION.				
	SALARIES.				
J. S. Cartwright	Twelve months' salary as Registrar	2,000 00			
A. Macdonell	do Clerk	1,400 00			
C. O. Strange	do do	950 00			

M. C. Jarvis		do	do	700 00		
Geo. Hilliar		do	Housekeeper and Messenger	600 00		
J. Rollo		do	Usher and Crier	160 00		
A. MacGregor	Ten	do	Messenger	173 00		
F. Bulmer	Two	do	do	26 66		
					6,009 66	
			EXPENSES.			
Warwick & Sons			Printing and binding	25 73		
J. Notman			Stationery	88 51		
G. M. Rose			Postage stamps	30 00		
J. S. Cartwright			To pay express charges, etc	7 75		
Cook & Bunker			Rubber stamp	6 00		
Hon. F. Osler			Grant to Library, 1888-9	200 00		
D. Clark			Services, office cleaning	216 00		
C. Clark			do	108 00		
Geo. Hilliar			Allowance for board of assistants	264 00		
					945 99	
						6,955 65
			COMMON PLEAS DIVISION.			
			SALARIES.			
M. B. Jackson			Twelve months' salary as Registrar of the Crown and Pleas	2,500 00		
M. J. Macnamara		do	Clerk	1,200 00		
H. A. Semple		do	do	800 00		
J. Alexander		do	Usher and Messenger	575 00		
					5,075 00	
			EXPENSES.			
Warwick & Sons			Printing and binding	57 82		
J. Notman			Stationery	69 43		
C. J. Fox			do	7 00		
Hon. F. Osler			Grant to Library, 1888-9	200 00		
M. B. Jackson			Petty office expenses	40 00		
					374 25	
						5 449 25
			SURROGATE JUDGES AND LOCAL MASTERS.			
			SALARIES.			
His Honour—						
Judge Elliott			Twelve months' commutation allowance as Surrogate Judge		1,000 00	
do Ardagh		do	do		479 00	
do McDonald		do	do		480 00	
do Burnham		do	do		540 00	
do Benson		do	do		600 00	
			Carried forward		3,099 00	55,548 91	331,700 37

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought fovward		3,099 00	55,548 91	331,700 37
	SURROGATE JUDGES AND LOCAL MASTERS—*Continued.*				
	SALARIES—*Continued.*				
His Honour –					
Judge Sinclair	Twelve months' commutation allowance as Surrogate Judge		1,000 00		
do Morgan	do do do do		666 00		
do Deacon	do do do do		264 00		
do Kingsmill	do do do do		408 00		
do Drew	do do do do		505 00		
do Miller	do do do do		417 00		
do Scott	do do do do		240 00		
do Price	do do do do		752 00		
do Senkler	do do do do		566 00		
do Dean	do do do do		500 00		
do Jones	do do do do		428 00		
do McCarthy	do do do do		168 00		
do Lacourse	do do do do		645 33		
do Ross	do do do do		500 00		
do Wilkison	do do do do		400 00		
do Lazier	do do do do		500 00		
do Lacourse	do do do Local Master		591 00		
do Dean	do do do do		900 00		
do Jones	do do do do		577 00		
S. Malcolmson	do do do do		1,250 00		
H. McDermott	Three do do do		312 00		
M. O'Reilly ....D	Twelve do do do		1,000 00		
J. E. O'Reilly	do do do do		3,500 00		
R. O'Hara	do do do do		1,600 00		
S. S. Lazier	do do do do		3,000 00		
W. A, McLean	Eleven do do do		779 16		
				24,567 49	
	MISCELLANEOUS CRIMINAL AND CIVIL JUSTICE.				
	CROWN COUNSEL PROSECUTIONS.				
J. P. Bucke	Services, Fall Assizes, 1888, Lambton		50 00		
C. MacDougall	do Winter Assizes, 1888, Middlesex		116 00		
Æ. Irving	do do Wentworth		64 00		

W. Lount	do	do	York		362 00		
G. W. Wells	do	Spring Assizes, 1889,	Brant		90 80		
J. King	do	do	Bruce		110 25		
Hon. R. W. Scott	do	do	Carleton		54 00		
J. W. Bowlby	do	do	Dufferin		74 00		
A. Fletcher	do	do	Elgin		167 50		
H. Carscallen	do	do	Essex		57 00		
B. M. Britton	do	do	Frontenac		128 00		
J. V. Teetzel	do	do	Haldimand		20 75		
J. W. Bowlby	do	do	Halton		84 00		
W. Lount	do	do	Hastings		97 00		
W. Lount	do	do	Huron		72 00		
C. MacDougall	do	do	Lambton		188 00		
D. G. Macdonell	do	do	Lanark		40 00		
R. C. Clute	do	do	Lennox and Addington		142 00		
B. M. Britton	do	do	Leeds and Grenville		174 00		
N. G. Bigelow	do	do	Lincoln		20 00		
C. MacDougall	do	do	Middlesex		386 00		
J. King	do	do	Norfolk		110 25		
H. M. Deroche	do	do	Northumberland and Durham		186 00		
H. O'Leary	do	do	Ontario		50 00		
F. R. Ball	do	do	Oxford		136 00		
E. Myers	do	do	Peel		20 00		
J. Idington	do	do	Perth		46 00		
W. R. Riddell	do	do	Peterboro'		162 00		
R. C. Clute	do	do	Prince Edward		32 00		
D. G. Macdonell	do	do	Prescott and Russell		20 00		
J. H. Metcalfe	do	do	Renfrew		193 00		
H. Carscallen	do	do	Simcoe		77 00		
B. M. Britton	do	do	Stormont, Dundas and Glengarry		105 58		
W. Kerr	do	do	Victoria		71 00		
W. H. Bowlby	do	do	Waterloo		63 00		
H. W. Peterson	do	do	Wellington		63 00		
W. Kerr	do	do	Wentworth		26 00		
J. Crerar	do	do	do		20 00		
Æ. Irving	do	do	York		248 00		
C. Macdougall	Services, Summer Assizes, 1889,		Algoma		135 00		
A. A. Adair	do	do	Muskoka		18 00		
do	do	do	Parry Sound		52 00		
C. Macdougall	do	do	Thunder Bay		20 00		
Æ. Irving	do	do	York		180 00		
C. W. Colter	do	Fall Assizes,	Brant		84 00		
Carscallen	do	do	Bruce		191 00		
Hon. R. W. Scott	do	do	Carleton		205 30		
Fletcher	do	do	Elgin		198 00		
J. F. Lister	do	do	Essex		68 00		
D. B. McLennan	do	do	Frontenac		87 00		
Carried forward					5,364 43	80,116 40	331,700 37

ADMINISTRATION OF JUSTICE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Boought forward		5,364 43	80,116 40	331,700 37
	MISCELLANEOUS CIVIL AND CRIMINAL JUSTICE—*Continued.*				
	CROWN COUNSEL PROSECUTIONS—*Continued.*				
A. Frost	Services, Fall Assizes, 1889 Grey		197 00		
J. W. Boultby	do do Haldimand		117 00		
J. King	do do Halton		66 48		
W. Kerr	do do Hastings		89 00		
J. F. Lister	do do Huron		88 00		
W. Lount	do do Kent		348 00		
C. Macdougall	do do Lambton		87 25		
A. F. McIntyre	do do Lanark		20 00		
do	do do Leeds and Grenville		196 00		
B. M. Britton	do do Lennox and Addington		58 00		
C. Macdougall	do do Middlesex		121 00		
H. M. Deroche	do do Northumberland and Durham		267 00		
H. O'Leary	do do Ontario		20 00		
F. R. Ball	do do Oxford		84 00		
C. W. Colter	do do Peel		20 00		
J. Idington	do do Perth		32 00		
D. G. Macdonell	do do Prescott and Russell		52 00		
H. M. Deroche	do do Prince Edward		20 00		
W. R. Riddell	do do Peterboro'		32 00		
J. H. Metcalfe	do do Renfrew		148 63		
J. King	do do Simcoe		36 75		
W. R. Riddell	do do Victoria		143 00		
W. H. Bowlby	do do Waterloo		10 00		
L. D. Raymond	do do Welland		10 00		
E. F. B. Johnston	do do Wellington		201 00		
H. W. Peterson	do do do		50 00		
Æ. Irving	do do Wentworth		260 00		
R. C. Clute	do do York		695 00		
				8,833 54	

GENERAL ADMINISTRATION OF JUSTICE IN COUNTIES.						
W. S Campbell	On account of expenditure as Treasurer, County of Brant,					
	December quarter, 1888	1,638 58				
	March quarter, 1889	858 69				
	June quarter, 1889	1,144 07				
			3,641 34			
N. Robertson	On account of expenditure as Treasurer, County of Bruce,					
	December quarter, 1888	1,525 20				
	March quarter, 1889	988 43				
	June quarter, 1889	1,244 38				
			3,758 01			
William Cowan	On account of expenditure as Treasurer, County of Carleton,					
	December quarter, 1888	2,206 91				
	March quarter, 1889	1,558 20				
	June quarter, 1889	1,349 28				
	September quarter, 1889	655 20				
			5,769 59			
R. T. Haun	On account of expenditure as Treasurer, County of Dufferin,					
	December quarter, 1888	448 55				
	March quarter, 1889	194 49				
	June quarter, 1889	397 15				
	September quarter, 1889	224 48				
			1,264 67			
J. McCausland	On account of expenditure as Treasurer, County of Elgin,					
	September quarter, 1888	471 96				
	December quarter, 1888	1,192 20				
	March quarter, 1889	577 11				
	June quarter, 1889	1,881 22				
			4,122 49			
T. H. Wright	On account of expenditure as Treasurer, County of Essex,					
	September quarter, 1888	764 70				
	December quarter, 1888	1,078 90				
	March quarter, 1889	775 29				
	June quarter, 1889	959 19				
			3,578 08			
T. F. Van Luven	On account of expenditure as Treasurer, County of Frontenac,					
	September quarter, 1888	364 95				
	December quarter, 1888	786 66				
	March quarter, 1889	530 09				
	June quarter, 1889	790 70				
			2,472 40			
S. J. Parker	On account of expenditure as Treasurer, County of Grey,					
	December quarter, 1888	576 75				
	March quarter, 1889	469 38				
	June quarter, 1889	434 99				
	September quarter, 1889	626 72				
			2,107 84			
	Carried forward		26,714 42	88,949 94	331,700 37	

ADMINISTRATION OF JUSTICE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		26,714 42	88,949 94	331,700 37
	GENERAL ADMINISTRATION OF JUSTICE IN COUNTIES.—*Con*				
A. A. Davis	On account of expenditure as Treasurer, County of Haldimand, December quarter, 1888.	324 80			
	March quarter, 1889.	815 15			
	June quarter, 1889.	501 26			
			1,641 21		
D. W. Campbell	On account of expenditure as Treasurer, County of Halton, December quarter, 1888.	565 20			
	March quarter, 1889.	396 04			
	June quarter, 1889.	542 76			
	September quarter, 1889.	296 89			
			1,800 89		
Thomas Wills	On account of expenditure as Treasurer, County of Hastings, December quarter, 1888.	2,078 69			
	March quarter, 1889.	419 66			
	June quarter, 1889.	1,399 27			
			3,897 62		
Wm. Holmes	On account of expenditure as Treasurer, County of Huron, December quarter, 1888.	1,473 41			
	March quarter, 1889.	783 28			
	June quarter, 1889.	605 02			
	September quarter, 1889.	192 66			
			3,054 37		
Hon. A. Vidal	On account of expenditure as Treasurer, County of Lambton, September quarter, 1888.	835 40			
	December quarter, 1888.	1,695 02			
	March quarter, 1889.	1,341 10			
	June quarter, 1889	1,267 54			
			5,139 06		
W. W. Berford	On account of expenditure as Treasurer, County of Lanark, December quarter, 1888.	518 77			
	March quarter, 1889.	604 37			
	June quarter, 1889.	395 93			
	September quarter, 1889.	574 93			
			2,094 00		

D. Mansell	On account of expenditure as Treasurer,	Counties of Leeds and Grenville, December quarter, 1888	915 69			
		March quarter, 1889	504 75			
		June quarter, 1889	842 13			
				2,262 57		
J. M. Parrott	On account of expenditure as Treasurer,	Counties of Lennox & Addington, December quarter, 1888	547 73			
		March quarter, 1889	359 49			
		June quarter, 1889	325 02			
				1,232 24		
Thomas Keyes	On account of expenditure as Treasurer,	County of Lincoln, September quarter, 1888	416 57			
		December quarter, 1888	880 45			
		March quarter, 1889	310 52			
		June quarter, 1889	454 52			
				2,062 06		
A. McEvoy	On account of expenditure as Treasurer,	County of Middlesex, December quarter, 1888	2,004 59			
		March quarter, 1889	1,380 97			
		June quarter, 1889	2,016 02			
				5,401 58		
T. W. Walsh	On account of expenditure as Treasurer,	County of Norfolk, December quarter, 1888	1,157 81			
		March quarter, 1889	450 33			
		June quarter, 1889	613 18			
				2,221 32		
E. A. Macnachton	On account of expenditure as Treasurer, Durham	Counties of Northumberland and December quarter, 1888	1,729 17			
		March quarter, 1889	575 07			
		June quarter, 1889	982 60			
		September quarter, 1889	1,246 17			
				4,533 01		
J. B. Laing	On account of expenditure as Treasurer,	County of Ontario, December quarter, 1888	1,150 32			
		March quarter, 1889	862 02			
		June quarter, 1889	516 65			
				2,528 99		
H. P. Brown	On account of expenditure as Treasurer,	County of Oxford, December quarter, 1888	949 09			
		March quarter, 1889	770 19			
		June quarter, 1889	816 78			
		September quarter, 1889	360 10			
				2,896 16		
G. Graham	On account of expenditure as Treasurer,	County of Peel, December quarter, 1888	784 45			
		March quarter, 1889	453 96			
		June quarter, 1889	630 66			
		September quarter, 1889	245 92			
				2,114 99		
	Carried forward			69,594 49	88,949 94	331,700 37

ADMINISTRATION OF JUSTICE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	.....	69,594 49	88,949 94	331,700 37
	GENERAL ADMINISTRATION OF JUSTICE IN COUNTIES—*Con.*				
A. Monteith	On account of expenditure as Treasurer, County of Perth,				
	December quarter, 1888	813 68			
	March quarter, 1889	610 92			
	June quarter, 1889	655 48			
			2,080 08		
E. Pearse	On account of expenditure as Treasurer, County of Peterborough,				
	September quarter, 1888	266 26			
	December quarter, 1888	907 56			
	March quarter, 1889	270 68			
	June quarter, 1889	999 30			
			2,443 80		
John Fraser	On account of expenditure as Treasurer, Counties of Prescott and Russell,				
	September quarter, 1888	243 03			
	December quarter, 1888	773 76			
			1,016 79		
Robert Boyle	On account of expenditure as Treasurer, County of Prince Edward,				
	December quarter, 1888	675 05			
	March quarter, 1889	400 44			
D. L. Bongard	June quarter, 1889	393 00			
	September quarter, 1889	271 67			
			1,740 16		
W. Moffatt	On account of expenditure as Treasurer, County of Renfrew,				
	September quarter, 1888	495 46			
	December quarter, 1888	1,557 69			
	March quarter, 1889	1,107 22			
	June quarter, 1889	501 17			
			3,661 54		
S. J. Sanford	On account of expenditure as Treasurer, County of Simcoe				
	March quarter, 1888	632 75			
	June quarter, 1888	2,524 81			
	September quarter, 1888	792 93			
			3,950 49		

C. J. Mattice	On account of expenditure as Treasurer, and Glengarry.	Counties of Stormont, Dundas				
		September quarter, 1888	372 58			
		December quarter, 1888	578 40			
		March quarter, 1889	590 12			
		June quarter, 1889	840 78			
				2,381 88		
T. Matchett	On account of expenditure as Treasurer,	County of Victoria,				
		September quarter, 1888	371 60			
		December quarter, 1888	499 28			
		March quarter, 1889	167 82			
		June quarter, 1889	1,187 87			
				2,226 57		
I. D. Bowman	On account of expenditure as Treasurer,	County of Waterloo,				
		December quarter, 1888	1,586 38			
		March quarter, 1889	1,078 01			
		June quarter, 1889	593 33			
		September quarter, 1889	564 75			
				3,822 47		
J. McGlashan	On account of expenditure as Treasurer,	County of Welland,				
		December quarter, 1888	666 70			
		March quarter, 1889	242 93			
		June quarter, 1889	423 56			
				1,333 19		
W. Reynolds	On account of expenditure as Treasurer,	County of Wellington,				
		December quarter, 1888	1,645 77			
		March quarter, 1889	637 27			
		June quarter, 1889	912 97			
		September quarter, 1889	1,057 83			
				4,253 84		
J. T. Stock	On account of expenditure as Treasurer,	County of Wentworth,				
		December quarter, 1888	1,889 67			
		March quarter, 1889	1,637 89			
		June quarter, 1889	1,784 51			
				5,312 07		
J. K. Macdonald	On account of expenditure as Treasurer,	County of York,				
		December quarter, 1888	4,836 02			
		March quarter, 1889	5,340 19			
		June quarter, 1889	5,173 16			
				15,349 37		
R. T. Coady	On account of expenditure as Treasurer,	City of Toronto,				
		June quarter, 1888	1,105 45			
		September quarter, 1888	1,037 67			
		December quarter, 1888	1,426 23			
		March quarter, 1889	1,647 44			
		June quarter, 1889	1,348 99			
				6,565 78		
	Carried forward			125,732 52	88,949 94	331,700 37

ADMIMISTRATION OF JUSTICE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		125,732 52	88,949 94	331,700 37
	GENERAL ADMINISTRATION OF JUSTICE IN COUNTIES—*Con.*				
John English	Twelve months' salary as Provincial Bailiff	1,200 00			
John English	Disbursements *re* transfer of Prisoners	3,650 00			
P. Simser	do do	39 65			
			4,889 65		
Estate Hughes Bros.	Clothing for discharged Prisoners	21 82			
W. & D. Dineen	do	3 00			
J. & J. Lugsdin	do	102 00			
McMaster, Darling & Co.	do	169 38			
Central Prison Industries	do	869 75			
Ogilvy, Alexander & Co.	do	439 11			
Dunnet, Macpherson & Co.	do	37 50			
Reformatory for Boys	do	469 00			
F. Hall & Son	do	1 00			
A. J. Chalne	do	13 25			
			2,125 81		
Reeve Township Culross	*Re* Administration of Justice, Bruce	193 80			
W. Grier	do do	257 80			
D. A. White	do Brant	100 00			
A. L. Tourchet	do Carleton	80 00			
J. W. Murray	do Dufferin	29 81			
J. E. Rogers	do do	191 52			
N. R. Butcher	do Elgin	8 10			
D. J. Donahue	do do	254 68			
J. W. Murray	do do	52 05			
J. Baton	do do	40 00			
J. W. Murray	do Essex	30 61			
W. Grier	do Frontenac	116 95			
J. W. Murray	do Grey	344 35			
C. Bell	do do	2 70			
J. E. Rogers	do do	69 95			
W. Grier	do Haldimand	87 90			
J. W. Murray	do do	393 31			
T. G. Matheson	do Halton	11 00			
J. W. Murray	do do	19 45			

W. Grier	do	Huron	374 65			
J. E. Rogers	do	do	30 00			
C. Macdougall	do	do	60 00			
J. W. Murray	do	do	55 06			
G. E. Henderson	do	Hastings	4 57			
J. W. Murray	do	Kent	18 54			
J. E. Rogers	do	do	918 58			
A. MacDougall	do	do	55 05			
W. J. McRener	do	do	39 00			
W. H. Ellis, M.B.	do	do	25 00			
T. W. McKee	do	do	10 50			
W. Grier	do	do	35 90			
Thomas Keys	do	do	100 00			
W. Grier	do	Lambton	111 90			
J. E. Rogers	do	do	336 10			
Warwick & Sons	do	do	2 24			
J. W. Murray	do	do	325 89			
M. Bowen	do	do	94 90			
J. H. Manning	do	do	30 00			
W. Grier	do	Lincoln	79 00			
C. Hutchinson	do	Middlesex	17 50			
J. E. Rogers	do	do	261 50			
J. W. Murray	do	Norfolk	181 25			
W. H. Ellis	do	Northumberland and Durham	50 00			
J. E. Rogers	do	Ontario	76 40			
J. H. Farewell	do	do	54 99			
J. W. Murray	do	Oxford	20 65			
J. W. Murray	do	Peterboro'	284 93			
J. H. Rogers	do	do	98 58			
W. Grier	do	Prescott and Russell	151 50			
W. Grier	do	Peel	42 30			
J. E. Rogers	do	Perth	53 35			
R. G Wright	do	Renfrew	40 63			
W. C. Irving	do	do	52 00			
J. H. Metcalf	do	do	10 00			
W. Grier	do	Simcoe	57 70			
J. W. Murray	do	do	35 00			
Thomas Bell	do	Victoria	213 45			
W. H. Gillies, M.B.	do	do	50 00			
A. P. Devlin	do	do	15 00			
W. Grier	do	do	128 65			
J. W. Murray	do	Waterloo	114 52			
W. Grier	do	do	302 55			
G. N. Baxter	do	do	153 50			
Imperial Bank	do	do	903 60			
Dr. L. B. Clement	do	do	20 00			
Dr. D. S. Bowlby	do	do	25 00			
W. H. Ellis, M.B.	do	do	25 00			
Carried forward			8,430 41	132,747 98	88,949 94	331,700 37

ADMINISTRATION OF JUSTICE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	8,430 41	132,747 98	88,949 94	331,700 37
	GENERAL ADMINISTRATION OF JUSTICE IN COUNTIES—*Con*				
J. E. Rogers	*Re* Administration of Justice, Wellington	29 00			
J. McConvey	do do	2 50			
A. Blue	do do	3 50			
W. Grier	do do	46 25			
J. W. Murray	do Welland	343 57			
F. B, Geddes	do Wentworth	5 00			
J. Crerar	do do	32 00			
Dr. E. Wolverton	do do	300 00			
J. W. Murray	do do	23 60			
J. E. Rogers	do do	2 00			
J. E. Rogers	do York	27 30			
Consul General of New York.	do do	125 35			
J. W. Murray	do do	95 20			
John East	do do	31 10			
Michael Basso	do do	26 00			
W. H. Ellis, M.B.	do do	25 00			
J. W. Murray	To pay postages, rent of box, etc	16 85	9,547 78		
J. E. Rogers	do do	18 05			
J. E. Rogers	Expenses *re* Louisa Tacon	30 10			
J. W. Murray	Services in New York	75 65			
Warwick & Sons	Embossing	1 00			
P. Paterson & Son	Hand cuffs, etc.	9 35			
J. E. Rogers	do	4 75			
M. N. Romley	do	18 50			
W. P. Band	To pay carriage of prisoners	500 00	174 25		
Geo. Wheler	do do	1,500 00			
R. W. Laird	do do	300 00			
			2,300 00		
				144,770 01	

	INSPECTION OF OFFICES UNDER JUDICATURE ACT.				
J. Winchester	Twelve months' salary as Inspector	2,500 00			
W. F. Grant	do Clerk	900 00			
Warwick & Sons	Printing and binding	139 27			
J. Notman	Stationery	51 55			
G. M. Rose	Postage stamps	60 00			
Carswell & Co	Law Reports	49 20			
J. Winchester	Travelling expenses	333 25			
M. B. Jackson	do	39 47			
			4,072 74		
	INSPECTION OF DIVISION COURTS.				
J. Dickey	Twelve months' salary as Inspector	1,700 00			
J. B. Macdonald	do Clerk	950 00			
W. H. Higgins	do do	950 00			
E Clark	Services as Messenger	102 00			
Warwick & Sons	Printing and binding	124 58			
J. Notman	Stationery	110 47			
C. J. Fox	do	5 25			
G. M. Rose	Postage stamps	124 00			
R. L. Polk & Co	Directory	4 00			
W. J. Dickson	Almanacs	60			
C. P. R. Telegraph	Messages	12 20			
G. N. W. Telegraph Co	do	9 10			
Verral Cab Co	Cab hire	2 50			
Bradstreet's Commercial Agency	Subscription	16 66			
W. H. Higgins	Petty office expenses	5 00			
J. Dickey	Travelling expenses	600 00			
			4,716 36		
	SPECIAL SERVICES.				
J. W. Murray	Twelve months' salary as Detective	1,600 00			
J. E. Rogers	do do	1,300 00			
Ira Lewis	Services *re* First Division Court, County Huron	8 62			
John Knox	do do do	7 50			
C. Hutchinson	do Fourth do County Middlesex	13 75			
G. E. Henderson	do First do County Hastings	4 56			
Thomas Dickson	do and expenses *re* Ninth Division Court, County Bruce	15 25			
J. T. Partridge	Costs and disbursements *re* Police Magistrate investigation	150 00			
G. E. Henderson	Services and disbursements *re* Attorney General *vs.* Lazier	72 39			
L. B Young	Services and expenses as Reporter	87 05			
A. R. Lewis	do do *re* Queen *vs.* Dulmage	72 56			
E. F. B. Johnston	Travelling expenses of self and Reporters *re* investigation Registrar Eager	12 50			
J. Winchester	do *re* investigation T. S. Potts, lock-up keeper	19 55			
E. F. B. Johnston	do *re* investigation H. Brown, J.P.	22 15			
			3,385 88		
	Carried forward		12,174 98	233,719 95	331,700 37

ADMINISTRATION OF JUSTICE—*Continued.*

TO WHOM PAID.	SERVICE.		$ c.	$ c.	$ c.	$ c.
	Brought forward			12,174 98	233,719 95	331,700 37
	MISCELLANEOUS CRIMINAL AND CIVIL JUSTICE—*Con.*					
	SHERIFFS' FEES, ETC.					
W. J. Scarfe	Attendance at Court as Sheriff, County of	Brant	14 20			
W. Sutton	do	Bruce	57 10			
J. Sweetland	do	Carleton	267 70			
D. Brown	do	Elgin	45 90			
J. C. Iler	do	Essex	117 10			
W. Ferguson	do	Frontenac	93 50			
C. H. Moore	do	Grey	20 00			
W. Hope	do	Hastings	177 20			
R. Gibbons	do	Huron	35 20			
J. Mercer	do	Kent	189 40			
J. Smart	do	Leeds and Grenville	109 70			
T. C. Dawson	do	Lincoln	57 00			
O. T. Pruyn	do	Lennox and Addington	6 00			
W. Glass	do	Middlesex	324 20			
E. Deedes	do	Norfolk	31 30			
J. O. Proctor	do	Northumberland and Durham	44 00			
G. Perry	do	Oxford	24 60			
J. F. Paxton	do	Ontario	24 60			
R. Brodie	do	Peel	12 40			
A. Hagar	do	Prescott and Russell	6 50			
J. Hossie	do	Perth	152 00			
J. Morris	do	Renfrew	14 20			
T. D. McConkey	do	Simcoe	149 40			
D. E. McIntyre	do	Stormont, Dundas and Glengarry	56 00			
J. McLennan	do	Victoria	32 90			
J. Smith	do	Welland	10 00			
Hon. A. McKellar	do	Wentworth	113 00			
R. McKim	do	Wellington	41 00			
J. H. Widdifield	do	York	302 00			
F. Mowat	do	City of Toronto	343 25			

W. Rubidge	Attendance at Court as D.C.C. & P, County of	Brant	49 05			
W. Gunn	do	Bruce	48 63			
J. P. Featherston	do	Carleton	68 25			
J. McLaren	do	Dufferin	12 15			
D. McLaws	do	Elgin	64 50			
F. R. Marcon	do	Essex	28 33			
J. Fraser	do	Frontenac	27 69			
A. McGill	do	Frontenac	32 18			
G. Inglis	do	Grey	56 40			
W. L. P. Eager	do	Halton	12 17			
W. A. Lawrence	do	Halton	12 30			
J. Mitchell	do	Haldimand	28 34			
A. G. Northrup	do	Hastings	97 02			
D. McDonald	do	Huron	53 00			
W. A. Campbell	do	Kent	76 50			
W. R. Gemmill	do	Lambton	60 55			
C. Rice	do	Lanark	28 27			
S. Reynolds	do	Leeds and Grenville	72 40			
W. P. Deroche	do	Lennox and Addington	36 69			
J. Clench	do	Lincoln	44 28			
J. McBeth	do	Middlesex	120 85			
C. C. Rapelje	do	Norfolk	16 40			
J. Fisher	do	Northumberland and Durham	284 25			
L. T. Barclay	do	Ontario	36 10			
J. Canfield	do	Oxford	56 52			
J. A. Austin	do	Peel	24 42			
J. MacFadden	do	Perth	32 50			
J. Moloney	do	Peterboro'	36 40			
J. Fraser	do	Prescott and Russell	32 34			
J. Twigg	do	Prince Edward	24 50			
A. Thomson	do	Renfrew	38 11			
J. Stevenson	do	Simcoe	96 50			
A. E. Macdonald	do	Stormont, Dundas and Glengarry	52 20			
W. Grace	do	Victoria	29 00			
J. Hough	do	Wellington	36 75			
S. H. Ghent	do	Wentworth	172 43			
I. P. Willson	do	Welland	12 52			
J. McDougall	do	Waterloo	20 06			
T. A. P. Towers	do	Algoma	36 12			
Isaac Huber	do	Algoma and Muskoka	8 26			
R. H. Stewart	do	Muskoka and Parry Sound	8 46			
F. J. Whitaker	do	Dep. Clerk of Assize, Thunder Bay	32 00			
F. C. Jarvis	do	Acting Clerk of Assize, York	80 00			
R. C. Palmer	do	Crier, Lambton	1 20			
G. Mercer	do	do Wellington	8 00			
				5,075 94		
		Carried forward		17,250 92	233,719 95	331,700 37

ADMINISTRATION OF JUSTICE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	....	17,250 92	233,719 95	331,700 37
	MISCELLANEOUS CRIMINAL AND CIVIL JUSTICE—*Continued.*				
	SEALS AND OTHER CONTINGENCIES.				
Rolph, Smith & Co	Division Court seals, etc	70 25			
D. S. Barclay	Seal, etc	12 00			
Barclay, Clark & Co	do	8 50			
J. Notman	Stamp cancellor	3 25			
Warwick & Sons	Binding Direction books, etc	199 72			
do	Printing gaol regulations	36 48			
Timms, Moore & Co	Direction books, etc	178 00			
			508 20		
	SHORTHAND REPORTERS.				
A. H. Crawford	Two months' salary as Reporter	266 67			
Robert Tyson	do	250 00			
A. J. Henderson	do	125 00			
E. E. Horton	do	250 00			
J. S. Monaghan	do	191 67			
N. R. Butcher	do	191 67			
L. B. Young	do	191 67			
F. V. Dickson	do	191 67			
A. E. Bastedo	do	20 83			
S. B Clark	do	16 66			
			1,695 84		
	NOTE—Salaries of Reporters for the other ten months were paid out of the balance at the credit of the "Reporters' Fund Account," Osgoode Hall.				
	LITIGATION OF CONSTITUTIONAL QUESTIONS.				
J. P. Macdonell	Services transferred for this year from Provincial Secretary's Department.	1,600 00			
L. J. Macdonell	do proof reading *re* Queen *vs.* St. Catharines Milling Co. (Indian Title)	20 00			

Mrs. Bennes	do copying	do	do	10 00		
Electric Despatch Co	Messenger service	do	do	2 50		
J. Notman	Stationery	do	do	14 08		
Verral Cab Co	Cab hire	do	do	1 75		
C. P. R. Telegraph	Cablegram	do	do	10 00		
O'Gara & McTavish	Services *re* taxation of costs	do	do	31 07		
J. P. McDonell	Expenses and disbursements	do	do	27 25		
J. A. Barron	Legal services, Attorney General *vs.* Francis			500 00		
Barron & McLaughlin	do			914 34		
Æ. Irving	do			602 00		
Blake, Lash & Cassels	Legal services, Queen *vs.* Wason			440 00		
Delamere & Co	do			2 51		
Warwick & Sons	Printing, do			31 81		
Blake, Lash & Cassels	Counsel fees *re* Power of Province to appoint Queen's Counsel, etc.			500 00		
J. J. McLaren	Counsel fee *re* Pizer *vs.* Fraser *et al*			50 00		
Clark & Wismer	Legal services *re* Essex Centre Licenses			61 03		
Æ. Irving	Professional services in various matters			2,275 00		
J. Notman	Stationery *re* Boundary			4 83		
Hon. O. Mowat	Travelling expenses			50 00		
				7,148 17		
	Less Refunds costs *re* Queen *vs.* St. Catharines Milling Co			1,711 73		
					5,436 44	

TRAVELLING EXPENSES OF JUDGES IN GROUPED COUNTIES.

His Honour—						
Judge Dean	Travelling expenses			141 55		
do Elliott	do			169 50		
do Mackenzie	do			187 30		
do Price	do			250 40		
do Robinson	do			181 75		
do Wilkison	do			262 15		
					1,192 65	

EXPENSES *re* DITCHES AND WATER COURSES ACT.

His Honour—						
Judge Davis	Travelling expenses			161 35		
do Dean	do			17 20		
do Elliott	do			5 25		
do Price	do			13 00		
do Reynolds	do			10 55		
do Toms	do			6 10		
do Woods	do			38 50		
					251 95	
	Carried forward				26,336 00	233,719 95	331,700 37

ADMINISTRATION OF JUSTICE—*Continued.*

TO WHOM PAID.	SERVICE.			$ c.	$ c.	$ c.	$ c.
	Brought forward				26,336 00	233,719 95	331,700 37
	MISCELLANEOUS CRIMINAL AND CIVIL JUSTICE—*Con.*						
	DEPUTY CLERKS OF CROWN AND PLEAS.						
T. A. P. Towers	Twelve months' salary	Deputy Clerk of Crown and Pleas,	Algoma	100 00			
W. Rubidge	do		Brant	450 00			
W. Gunn	do		Bruce	450 00			
J. P. Featherstone	do		Carleton	450 00			
John Mclaren	do		Dufferin	450 00			
D. McLaws	do		Elgin	450 00			
F. E. Marcon	do		Essex	450 00			
A. McGill	do		Frontenac	450 00			
Geo. Inglis	do		Grey	500 00			
J. Mitchell	do		Haldimand	400 00			
W. L. P. Eager	Five	do	Halton	150 00			
W. A. Lawrence	Six	do	do	200 00			
A. G. Northrup	Twelve	do	Hastings	450 00			
D. McDonald		do	Huron	500 00			
W. A. Campbell		do	Kent	450 00			
W. R. Gemmill		do	Lambton	450 00			
C. Rice		do	Lanark	450 00			
S. Reynolds		do	Leeds and Grenville	500 00			
W. P. Deroche		do	Lennox and Addington	400 00			
J. Clench		do	Lincoln	450 00			
John Macbeth		do	Middlesex	500 00			
C. C. Rapelje		do	Norfolk	450 00			
John Fisher		do	Northumberland and Durham	500 00			
L. T. Barclay		do	Ontario	450 00			
Jas. Canfield		do	Oxford	450 00			
J. A. Austin		do	Peel	400 00			
John Twigg		do	Prince Edward	400 00			
J. McFadden		do	Perth	450 00			
John Moloney		do	Peterborough	450 00			
John Fraser		do	Prescott and Russell	450 00			
A. Thomson		do	Renfrew	400 00			
A. E. McDonald		do	Stormont, Dundas and Glengarry	500 00			

J. McL. Stevenson	do	Simcoe	500 00			
W. Grace	do	Victoria	450 00			
J. MacDougall	do	Waterloo	850 00			
I. P. Willson	do	Welland	800 00			
J. Hough	do	Wellington	500 00			
S. H. Ghent	do	Wentworth	500 00			
				17,150 00		
		LOCAL REGISTRARS,				
T. A. P. Towers	Salary as Registrar in Chancery Division,	Algoma	50 00			
W. Rubidge	do	Brant	225 00			
John McLaren	do	Dufferin	225 00			
D. McLaws	do	Elgin	225 00			
Geo. Inglis	do	Grey	250 00			
J. Mitchell	do	Haldimand	200 00			
W. L. P. Eager	do	Halton	100 00			
W. A. Lawrence	do	do	150 00			
W. R. Gemmill	do	Lambton	225 00			
C. Rice	do	Lanark	225 00			
W. P. Deroche	do	Lennox and Addington	200 00			
C. C. Rapelje	do	Norfolk	225 00			
John Fisher	do	Northumberland and Durham	250 00			
L. T. Barclay	do	Ontario	225 00			
J. A. Austin	do	Peel	200 00			
John Moloney	do	Peterborough	225 00			
John Twigg	do	Prince Edward	200 00			
J. McFadden	do	Perth	225 00			
P. H. Stewart	do	Parry Sound	600 00			
John Fraser	do	Prescott and Russell	225 00			
A. Thomson	do	Renfrew	200 00			
A. E. McDonald	do	Stormont, Dundas & Glengarry	250 00			
C. Kriessman	do	Thunder Bay	300 00			
F. J. Whitaker	do	do	300 00			
W. Grace	do	Victoria	225 00			
J. McDougall	do	Waterloo	225 00			
I. P. Willson	do	Welland	200 00			
				6,150 00		
		EXPENSES *re* LAND TITLES ACT.				
J. G. Scott	Twelve months' salary as Master of Titles		3,600 00			
W. Mactavish	do	Clerk	750 00			
H. D. Sinclair	do	do	850 00			
R. H. Essex	Nine do	do	516 53			
H. M. Boddy	Services as extra Clerk		348 28			
F. Robinson	do		166 57			
C. S. Horrocks	Services copying		2 50			
Warwick & Sons	Printing and binding		527 81			
	Carried forward		6,761 69	49,636 00	233,719 95	331,700 37

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Prought foeward	6,761 69	49,636 00	233,719 95	331,700 37
	MISCELLANEOUS CRIMINAL AND CIVIL JUSTICE—*Con.*				
	EXPENSES *re* LAND TITLES ACT—*Continued.*				
J. Notman	Stationery	56 34			
C. J. Fox	do	10 50			
R. L. Polk & Co.	Directory	5 00			
J. G. Scott	To pay postage	43 50			
Office Specialty Mf'g. Co.	Printing and putting on tablets	9 00			
M. Williams	Painting sections on plans	3 00			
			6,889 03		
	LOCAL MASTERS OF TITLES IN OUTLYING DISTRICTS.				
J. E. Lount	Services as Local Master, Muskoka, 1888-9	350 00			
P. McCurry	do Parry Sound, 1888-9	550 00			
H. C. Hamilton	do Algoma, 1888-9	900 00			
Judge McCrea	do do	50 00			
W. Doran	do Nipissing, 1888-9	400 00			
J. Munro	do Thunder Bay, 1888-9	450 00			
Warwick & Sons	Printing and binding	107 22			
J. Notman	Stationery, North Bay	19 75			
do	Register, Bracebridge	17 50			
do	do Port Arthur	17 50			
Canadian Express Co.	Charges	60			
Dominion Express Co.	do	2 75			
Vickers' Express Co	do	2 40			
J. G. Scott	Travelling expenses, inspecting	72 40			
			2,940 12		
	DISTRICT OF ALGOMA.				
W. H. Carney	Twelve months' salary as Sheriff	1,450 00			
Geo. Burden	do Stipendiary Magistrate	1,400 00			
John Gillies	do do	1,400 00			
A. McNaughton	do do	1,400 00			

J. J. Kehoe	do	Clerk of the Peace	900 00			
T. A. P. Towers	do	Clerk, District Court	800 00			
C. J. Bampton	do	Registrar	800 00			
James Mills	do	Constable	250 00			
R. Rush	do	do	400 00			
W. H. Carney	On account of expenditure as Treasurer, December quarter, 1888		2,005 84			
do	do	do March quarter, 1889	1,593 43			
do	do	do June quarter, 1889	3,578 33			
do	do	do September quarter, 1889	3,675 98			
do	do	do December quarter, 1889	700 00			
A. Thorburn	Services as Lock-up Keeper, Gore Bay		200 00			
T. S. Potts	do	Little Current	233 33			
T. Gorley	do	Manitowaning	200 00			
W. J. Miller	do	Thessalon, 1888	100 00			
A. Thorburn	Supplies, Lock-up, Gore Bay		6 60			
Anderson Bros	do do		5 45			
A. Davidson	Fuel do do		60 00			
T. S. Potts	Supplies do	Little Current	206 96			
T. J. Patten	Fuel, etc. do	do	46 40			
S. Blackburn	do	do	55 25			
Dr. Carruthers	Medical attendance	do	17 00			
Dr. J. Johnston	do	do	6 00			
J. Baxter	do	do	13 00			
Mrs. Potts	Services as Matron	do	10 00			
J. Logan	Services as Turnkey	do	7 87			
D. McKenzie	do	do	7 88			
B. Billington	Table,	do	2 00			
T. Gorley	Supplies Lock-up Manitowaning		55 25			
do	Fuel do	do	60 00			
J. E. Rogers	Expenses *re* Indian murder, Little Current		93 40			
J. Tansey	Services as Constable at Chaplean		128 00			
Copp, Clark Co	Abstract Index, for District Registrar, Sudbury		17 50			
do	do	do Sault Ste. Marie	60 00			
D. E. Smith	Services, reporting at assizes		60 00			
Dominion Express Co	Charges		4 80			
				22,010 27		
	DISTRICT OF THUNDER BAY.					
A. W. Thompson	Services as Acting Treasurer		200 00			
James Meek	Services as Deputy Sheriff		1,000 00			
A. W. Thompson	On account of expenditure as Treasurer, December quarter, 1888		1,395 07			
do	do	do March quarter, 1889	1,667 32			
do	do	do June quarter, 1889	1,517 25			
do	do	do September quarter, 1889	1,956 60			
do	do	do December quarter, 1889	1,200 00			
				8,936 24		
	Carried forward			90,411 66	233,719 95	331,700 37

ADMINISTRATION OF JUSTICE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	....	90,411 66	233,719 95	331,700 37
	MISCELLANEOUS CRIMINAL AND CIVIL JUSTICE—*Con.*				
	DISTRICT OF RAINY RIVER.				
W. D. Lyon	Twelve months' salary as Stipendiary Magistrate	1,600 00			
W. H. McKay	do do Bailiff and Chief Constable	900 00			
W. H Carpenter	do do Sheriff	1,000 00			
F. J. Apjohn	do do Registrar and Clerk Division Court	650 00			
W. D. Lyon	On account of expenditure as Treasurer, December quarter, 1888	391 81			
do	do do March quarter, 1889	987 18			
do	do do June quarter, 1889	1,069 52			
do	do do September quarter, 1889	1,091 35			
do	do do December quarter, 1889	700 00			
W. Redden	Services as Constable	200 00			
W. Coker	do	166 66			
J. A. Martin	do	124 00			
James Green	do	41 50			
W. H. Carpenter	Safe for Registry Office	300 00			
P. Paterson & Son	Revolvers, handcuffs, etc	69 75			
James Bain & Son	Enumerator books, etc	58 50			
			9,341 27		
	DISTRICT OF NIPISSING				
W. Doran	Twelve months' salary as Stipendiary Magistrate	1,600 00			
E. B. Borron	do do	1,200 00			
W. Doran	On account of expenditure as Treasurer, December quarter, 1888	261 28			
do	do March quarter, 1889	681 31			
do	do June quarter, 1889	457 19			
do	do September quarter, 1889	728 11			
A. McNaughton	On account of expenditure as Treasurer, March quarter, 1889	381 22			
do	do June and September quarters, 1889	320 78			
do	do December quarter, 1889	125 00			
Warwick & Sons	Printing, paper, etc., for District Registrar	5 40			
Copp, Clark Co	Abstract Indices do	35 00			
J. Notman	do do	18 00			

do	Stationery	80 73			
Dominion Express Co	Charges on Registration Books	1 60			
Canadian Express Co	do	1 91			
Mercer Reformatory	Clothing, etc., Lock-up, North Bay	27 56			
W. Moffatt	Maintenance of prisoners Renfrew Gaol, 1886-8	1,000 00			
		6,925 09			
	Less Refund, E B. Borron	121 12			
			6,803 97		
	DISTRICT OF MUSKOKA.				
C. W. Lount	Twelve months' salary as Stipendiary Magistrate	1,860 60			
W. H. Spencer	Five do	216 44			
J. W. Bettes	Services as Sheriff	625 00			
A. A. Adair	do District Attorney and Clerk of the Peace	200 00			
I. Huber	do do	150 00			
I. Huber	do Deputy Clerk	300 00			
C. W. Lount	On account of expenditure as Treasurer, December quarter, 1888	1,535 50			
do	do March quarter, 1889	1,071 91			
do	do June quarter, 1889	1,690 82			
do	do September quarter, 1889	539 67			
do	do December quarter, 1889	645 32			
A. A. Adair	Services *re* larceny cases	3 00			
Jas. Bain & Son	Sheriff's books	17 50			
Copp, Clark Co	do	93 15			
Jas. Bain & Son	Books for Clerk of Court	3 50			
Copp, Clark Co	Register and indices	156 00			
J. Notman	Stationery for Registrar	51 06			
Canadian Express Co	Charges	3 50			
W. Grier	Travelling expenses	35 00			
			9,137 37		
	DISTRICT OF PARRY SOUND.				
P. McCurry	Twelve months' salary as Stipendiary Magistrate	1,800 00			
H. Armstrong	Services as Sheriff	500 00			
A. A. Adair	do District Attorney and Clerk of the Peace	200 00			
P. McCurry	On account of expenditure as Treasurer, December quarter, 1888	576 05			
do	do March quarter, 1889	525 23			
do	do June quarter, 1889	1,224 31			
do	do September quarter, 1889	979 45			
do	do December quarter, 1889	300 00			
J. Notman	Registers, etc	83 25			
Copp, Clark Co	Sheriff's books	34 00			
J. Bain & Son	Books for Clerk of Court	3 50			
Alex. Logan	Office desk	22 00			
J. Reid	Expenses *re* larceny cases	20 00			
Canadian Express Co	Charges	1 55			
Vickers' Express Co	do	1 60			
			6,270 94		
	Carried forward		121,965 21	233,719 95	331,700 37

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		121,965 21	233,719 95	331,700 37
	MISCELLANEOUS, CRIMINAL AND CIVIL JUSTICE—*Continued.*				
	DISTRICT OF MANITOULIN.				
W. J. Francis	Services as Clerk of District and Surrogate Courts	250 00			
D. Springer	do Registrar of Deeds and Master of Titles	500 00			
W. W. McCoy	do Constable	125 00			
C. J. Bampton	Copying instruments and books *re* office of Registrar, etc	74 40			
Algoma *Gossip*	Advertising Order in Council *re* do	2 25			
Sault St. Marie *Express*	do do	5 12			
Manitoulin *Expositor*	do do	4 80			
D. R. Springer	Making and copying abstract indices	96 80			
Copp, Clark Co	Registrar's books	11 00			
H. S. Sims	Expenses of election *re* judicial seat	80 00			
P. McCurry	For expenses holding Division Court	60 00			
W. Grier	Services and expenses *re* incendiary fires	321 95			
			1,531 32		
	PROVISIONAL COUNTY OF HALIBURTON.				
M. Brown	On account of expenditure as Treasurer, December quarter, 1888	37 50			
do	do March quarter, 1889	37 50			
do	do June quarter, 1889	37 50			
do	do September quarter, 1889	37 50			
J. E. Rogers	Expenses *re* incendiary fires	55 05			
J. W. Murray	do	217 00			
			422 05		
	PROVINCIAL POLICE OF NIAGARA & DETROIT RIVER.				
A. G. Hill	Twelve months' salary as Police Magistrate	1,200 00			
M. McDougald	do Chief of Police	1,095 00			
T. H. Young	do Police Constable	821 25			
Geo. A. McMicking	do do	730 00			
R. Griffin	do do	730 00			
Gideon Grisdale	do do	730 00			

C. J. Metcalf	Five and one-half months	do	337 00		
Albert Davy	Three do	do	150 00		
T. W. McKee	Twelve do	do	929 55		
A. F. Campeau	Six and one-half do	do	398 00		
Bartlet & McDonald	Police clothing		99 40		
Anderson & Logan	do		292 00		
Burke & Co.	do		28 00		
Welland County *Gazette*	Printing		2 00		
D. W. Bixby	Stationery		15 95		
Newsome & Co.	do		29 50		
G. Bartlet	Postage, stationery, etc.		2 25		
do	do and rent of box		16 50		
G. N. W. Telegraph Co	Telegrams		3 57		
Bell Telephone Co	Rent of instrument		125 00		
G. Grisdale	Revolver		10 50		
J. B. Field & Co.	Revolver, handcuffs, etc.		16 50		
W. M. Cooper	Nippers		1 50		
A. G. Hill	Care of office		44 00		
A. G. Hill	To pay office rent		150 00		
Coulson & Robinson	Fuel		38 75		
C. Baldry	Meals for prisoners		48 25		
T. W. McKee	Travelling expenses		155 33		
A. F. Campeau	do		94 24		
T. H. Young	do		9 90		
R. Griffin	do		2 65		
A. Bartlet	Accountable warrant		75 00		
A. G. Hill	Sundry payments		232 12		
				8,613 71	
					132,532 29
	Total Administration of Justice				366,252 24

EDUCATION.

PUBLIC SCHOOLS.

Treasurer, County of—					
Brant	Allowance re Public Schools		2,113 00		
Bruce	do		5,108 00		
Carleton	do		3,788 00		
Dufferin	do		2,718 00		
Elgin	do		3,376 00		
Essex	do		3,976 00		
Frontenac	do		2,655 00		
Grey	do		6,830 00		
Haldimand	do		2,163 00		
	Carried forward		32,727 00		697,952 61

EDUCATION—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	32,727 00			697,952 61
	PUBLIC SCHOOLS—*Continued.*				
Treasurer, County of—					
Halton	Allowance *re* Public Schools	1,756 00			
Hastings	do	4,424 00			
Haliburton	do	686 00			
Huron	do	6,228 00			
Kent	do	3,686 00			
Lambton	do	3,883 00			
Lanark	do	2,687 00			
Leeds and Grenville	do	4,891 00			
Lennox and Addington	do	2,369 00			
Lincoln	do	1,930 00			
Middlesex	do	6,523 00			
Norfolk	do	3,095 00			
Northumb'd and Durham	do	6,271 00			
Ontario	do	3,905 00			
Oxford	do	3,695 00			
Peel	do	2,365 00			
Peterboro'	do	2,401 00			
Perth	do	3,781 00			
Prescott and Russell	do	3,198 00			
Prince Edward	do	1,815 00			
Renfrew	do	3,772 00			
Simcoe	do	6,685 00			
Storm't, Dundas & Gleng'y	do	6,449 00			
Victoria	do	2,724 00			
Waterloo	do	2,929 00			
Welland	do	2,246 00			
Wellington	do	4,479 00			
Wentworth	do	3,133 00			
York	do	5,086 00			
Treasurer, City of—					
Belleville	do	1,081 00			
Brantford	do	1,488 00			
Guelph	do	1,121 00			

Hamilton	do		4,467 00			
Kingston	do		1,496 00			
London	do		3,007 00			
Ottawa	do		2,086 00			
St. Catharines	do		1,017 00			
St. Thomas	do		1,306 00			
Stratford	do		1,009 00			
Toronto	do		16,457 00			
Treasurer, Town of—						
Almonte	do		336 00			
Amherstburg	do		155 00			
Aylmer	do		306 00			
Barrie	do		477 00			
Berlin	do		744 00			
Bothwell	do		118 00			
Bowmanville	do		492 00			
Brampton	do		431 00			
Blenheim	do		190 00			
Brockville	do		874 00			
Chatham	do		945 00			
Clinton	do		396 00			
Cobourg	do		462 00			
Collingwood	do		614 00			
Cornwall	do		360 00			
Deseronto	do		351 00			
Dresden	do		247 00			
Dundas	do		366 00			
Durham	do		149 00			
Gravenhurst	do		258 00			
Galt	do		878 00			
Goderich	do		460 00			
Harriston	do		248 00			
Ingersoll	do		571 00			
Kincardine	do		329 00			
Lindsay	do		469 00			
Listowel	do		393 00			
Meaford	do		277 00			
Milton	do		182 00			
Mitchell	do		302 00			
Mount Forest	do		312 00			
Napanee	do		420 00			
Newmarket	do		220 00			
Niagara	do		156 00			
Niagara Falls	do		300 00			
Oakville	do		177 00			
Orangeville	do		522 00			
Orillia	do		413 00			
Oshawa	do		463 00			
		Carried forward	189,717 00			697,952 61

EDUCATION—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	189,717 00			697,952 61
	PUBLIC SCHOOLS—*Continued.*				
Treasurer, Town of--					
Owen Sound	Allowance *re* Public Schools	767 00			
Parry Sound	do	173 00			
Palmerston	do	242 00			
Paris	do	376 00			
Pembroke	do	304 00			
Penetanguishene	do	256 00			
Perth	do	404 00			
Peterboro'	do	785 00			
Petrolea	do	518 00			
Picton	do	311 00			
Parkhill	do	176 00			
Port Arthur	do	495 00			
Port Hope	do	675 00			
Prescott	do	249 00			
Ridgetown	do	261 00			
Stayner	do	145 00			
Sandwich	do	157 00			
Sarnia	do	650 00			
Seaforth	do	345 00			
Simcoe	do	364 00			
Smith's Falls	do	432 00			
St. Mary's	do	393 00			
Strathroy	do	479 00			
Thornbury	do	156 00			
Thorold	do	239 00			
Tilsonburg	do	291 00			
Trenton	do	395 00			
Uxbridge	do	270 00			
Walkerton	do	395 00			
Waterloo	do	348 00			
Welland	do	249 00			
Whitby	do	345 00			
Windsor	do	996 00			
Wingham	do	273 00			
Woodstock	do	1,089 00			

Treasurer, Village of—						
Acton	do		158 00			
Ailsa Craig	do		99 00			
Alexandria	do		24 00			
Alliston	do		219 00			
Alvinston	do		118 00			
Arkona	do		72 00			
Arnprior	do		255 00			
Arthur	do		105 00			
Ayr	do		152 00			
Ashburnham	do		186 00			
Aurora	do		265 00			
Bath	do		66 00			
Bayfield	do		85 00			
Beamsville	do		97 00			
Beaverton	do		102 00			
Belle River	do		81 00			
Blyth	do		134 00			
Beeton	do		80 00			
Bracebridge	do		146 00			
Bradford	do		137 00			
Brighton	do		213 00			
Bolton	do		93 00			
Bobcaygeon	do		112 00			
Brussels	do		159 00			
Burlington	do		165 00			
Caledonia	do		126 00			
Campbellford	do		290 00			
Cannington	do		138 00			
Cardinal	do		98 00			
Carleton Place	do		491 00			
Cayuga	do		106 00			
Chesley	do		167 00			
Chippawa	do		70 00			
Clifford	do		75 00			
Colborne	do		113 00			
Drayton	do		105 00			
Dunnville	do		289 00			
Dundalk	do		102 00			
Elora	do		135 00			
Embro	do		74 00			
Erin	do		69 00			
Essex Centre	do		234 00			
Exeter	do		231 00			
Elmira	do		121 00			
Fenelon Falls	do		164 00			
Fergus	do		199 00			
Forest	do		219 00			
Fort Erie	do		104 00			
		Carried forward	210,763 00			697,952 61

EDUCATION—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	210,763 00			697,952 61
	PUBLIC SCHOOLS—*Continued.*				
Treasurer, Village of—					
Gananoque	Allowance *re* Public Schools	470 00			
Garden Island	do	45 00			
Georgetown	do	202 00			
Glencoe	do	110 00			
Grimsby	do	107 00			
Hagersville	do	112 00			
Hastings	do	80 00			
Huntsville	do	98 00			
Hawkesbury	do	195 00			
Hespeler	do	145 00			
Holland Landing	do	73 00			
Iroquois	do	133 00			
Kemptville	do	165 00			
Kingsville	do	123 00			
Lanark	do	101 00			
Lakefield	do	145 00			
Leamington	do	358 00			
L'Orignal	do	77 00			
London West	do	256 00			
Lucknow	do	153 00			
Lucan	do	123 00			
Madoc	do	151 00			
Markdale	do	90 00			
Markham	do	138 00			
Merrickville	do	126 00			
Merritton	do	187 00			
Minden	do	25 00			
Midland	do	231 00			
Milverton	do	76 00			
Millbrook	do	135 00			
Morrisburg	do	260 00			
Newboro'	do	62 00			
Newburgh	do	91 00			
Newbury	do	63 00			
Newcastle	do	88 00			
New Hamburg	do	157 00			

Niagara Falls South	do		146 00			
North Bay	do		105 00			
Norwich	do		182 00			
Norwood	do		127 00			
Oil Springs	do		121 00			
Omemee	do		90 00			
Paisley	do		148 00			
Point Edward	do		175 00			
Port Colborne	do		113 00			
Port Dalhousie	do		88 00			
Port Dover	do		148 00			
Port Elgin	do		275 00			
Port Perry	do		232 00			
Port Stanley	do		82 00			
Portsmouth	do		77 00			
Preston	do		221 00			
Rockland	do		118 00			
Renfrew	do		204 00			
Richmond	do		45 00			
Richmond Hill	do		107 00			
Sault Ste. Marie	do		116 00			
Shelburne	do		228 00			
Southampton	do		169 00			
Springfield	do		60 00			
Stirling	do		105 00			
Stouffville	do		144 00			
Streetsville	do		105 00			
Tara	do		101 00			
Teeswater	do		151 00			
Thamesville	do		102 00			
Tottenham	do		80 00			
Toronto East	do		80 00			
Thedford	do		81 00			
Tiverton	do		89 00			
Tilbury Centre	do		117 00			
Vienna	do		44 00			
Wallaceburg	do		294 00			
Wardsville	do		46 00			
Waterdown	do		92 00			
Waterford	do		176 00			
Watford	do		151 00			
Wellington	do		75 00			
Weston	do		107 00			
West Toronto Junction	do		165 00			
Wiarton	do		181 00			
Woodbridge	do		100 00			
Woodville	do		70 00			
Wroxeter	do		59 00			
Wyoming	do		107 00			
		Carried forward	222,116 00			697,952 61

EDUCATION—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	222,116 00			697,952 61
	PUBLIC SCHOOLS—*Continued.*				
Treasurer School Section—					
2 Allan	Allowance *re* Public Schools	15 25			
1 Armour	do	51 54			
2 do	do	97 14			
3 do	do	20 54			
4 do	do	12 03			
5 do	do	11 46			
1 Aird Island	do	16 50			
1 Assignack	do	15 25			
2 do	do	72 25			
3 do	do	29 50			
6 do	do	8 25			
7 do	do	7 50			
1 Barrie Island	do	19 00			
1 Beaver Mines	do	21 75			
1 Billings & Allan	do	23 75			
2 do	do	18 50			
4 Bidwell	do	12 25			
2 Bonfield	do	19 17			
1 Burpee	do	15 75			
Brunel Township	do	78 00			
1 Bruce Mines	do	78 50			
1 Calvin	do	11 73			
2 do	do	5 10			
1 Campbell	do	10 50			
2 do	do	12 00			
3 do	do	17 50			
4 do	do	17 50			
1 Carlyle	do	17 75			
1 Carnarvon	do	35 25			
2 do	do	16 75			
3 do	do	19 25			
1, 2, 3 Christie	do	29 27			
Chaffey Township	do	116 00			
1 Chapman	do	68 56			

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EDUCATION—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	224,321 24			697,952 61
	PUBLIC SCHOOLS—*Continued.*				
Treasurer, School Section—					
2 Laird	Allowance *re* Public Schools	3 50			
1 Lount	do	11 76			
2 do	do	2 65			
1 Lyell, etc	do	10 40			
1 Lylester	do	16 00			
1 Lefroy & Plummer	do	14 25			
2 Lefroy & Thessalon	do	7 00			
1 Mattawa	do	46 09			
1 Machar	do	16 78			
2 do	do	28 56			
3 do	do	19 04			
1 Mills	do	19 25			
1 Monteith	do	4 23			
2 do	do	4 42			
Macaulay Township	do	100 00			
McLean Township	do	96 00			
2 McDonald & Meredith	do	5 25			
1 McKim	do	25 00			
2 McDougall	do	20 29			
3 do	do	11 01			
4 do	do	22 74			
1 McMurrich	do	24 54			
2 do	do	7 01			
5 do	do	3 97			
1 McKenzie	do	1 49			
1 McKellar	do	54 46			
3 do	do	12 19			
4 do	do	16 43			
3 Nipissing	do	4 94			
Oakley Township	do	41 00			
1 Oliver	do	11 00			
2 do	do	4 50			
Pelee Island Township	do	40 00			
1 Patterson	do	17 95			

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EDUCATION—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	226,370 40			697,952 61
	PUBLIC SCHOOLS—*Continued.*				
Treasurer School Section—					
2 Tekhummah	Allowance *re* Public Schools	8 00			
3 do and Sandfield	do	16 50			
1 Thessalon	do	86 25			
2 do and Kirkwood	do	33 75			
3 do	do	22 25			
1 Thompson	do	8 50			
1 Wallbridge	do	56 50			
2 do	do	45 51			
1 Wells	do	12 25			
1 Wilson	do	13 41			
1 Widdifield	do	76 49			
1 Victoria	do	19 00			
Warwick & Sons	Printing	56 65			
H. R. Alley	Travelling expenses	69 00			
J. Notman	Stationery	25			
Can. *Education Monthly*	Advertising	12 00	226,906 71		
	SEPARATE SCHOOLS.				
Trustees, City of –					
Belleville	Allowance *re* Separate Schools	244 50			
Brantford	do	155 50			
Guelph	do	224 50			
Hamilton	do	775 50			
Kingston	do	483 50			
London	do	428 50			
Ottawa	do	2,461 00			
Stratford	do	190 50			
St. Catharines	do	280 00			
St. Thomas	do	149 50			
Toronto	do	2,330 50			
Trustees, Town of –					
Almonte	do	86 00			
Amherstburg	do	156 00			
Barrie with 12 Innisfil	do	97 50			

Berlin	do		137 00			
Brockville	do		250 00			
Chatham	do		145 50			
Cobourg	do		159 50			
Cornwall	do		457 00			
Dundas	do		155 50			
Galt	do		60 00			
Goderich	do		65 00			
Ingersoll	do		79 50			
Lindsay	do		279 50			
Newmarket	do		38 50			
Niagara Falls	do		79 00			
Oakville	do		34 50			
Oshawa	do		69 00			
Orillia	do		90 50			
Owen Sound	do		69 00			
Port Arthur	do		185 50			
Paris	do		64 00			
Pembroke	do		223 00			
Parkhill	do		33 00			
Perth	do		109 50			
Peterboro'	do		354 50			
Picton	do		44 50			
Prescott	do		130 00			
Renfrew	do		64 50			
Sarnia	do		85 00			
Sault Ste. Marie	do		20 00			
St. Mary's	do		43 00			
Thorold	do		124 50			
Trenton	do		117 00			
Whitby	do		34 50			
Trustees, Village of—						
Alexandria	do		134 50			
Arnprior	do		112 50			
Arthur	do		56 50			
Elora	do		36 00			
Fergus	do		16 50			
Hastings	do		35 00			
L'Orignal	do		22 00			
Merritton	do		46 50			
Port Colborne	do		35 00			
Port Dalhousie	do		29 00			
Portsmouth	do		35 00			
Renfrew	do		78 00			
Wallaceburg	do		77 00			
Weston	do		25 00			
		Carried forward	12,603 00	226,906 71	.....	697,952 61

EDUCATION—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	12,603 00	226,906 71	.....	697,952 61
	SEPARATE SCHOOLS—*Continued.*				
Trustees, School Section—					
10 Adjala	Allowance *re* Separate Schools	19 50			
3 Alfred	do	16 50			
7 do	do	24 50			
7 do with 8 Plantagenet	do	20 00			
3 and 4 Anderdon	do	25 00			
6 Artemesia & 7 Glenelg.	do	6 50			
6 do do	do	6 50			
6 Arthur	do	36 50			
10 do'	do	26 00			
4 Asphodel	do	27 50			
6 Biddulph	do	28 00			
9 do with 1 McGillivray	do	5 50			
1 (15) Brighton	do	10 00			
6 Burgess N	do	10 00			
1 Bonfield	do	19 07			
2 do	do	11 42			
3 do	do	28 76			
3, 4 & 10 Caledonia	do	30 00			
2 Cambridge	do	49 00			
6 & 7 do	do	28 00			
1 Carrick	do	37 00			
2 do	do	23 50			
14 do	do	78 00			
15 Charlottenburg	do	37 50			
1 Cornwall	do	19 00			
16 do	do	74 00			
4 Crosby, North	do	60 50			
7 do	do	12 00			
10 Cumberland	do	18 00			
13 do	do	41 50			
9 Downie	do	23 50			
2 Edwardsburgh	do	12 00			
7 Ellice	do	18 00			
5 Finch	do	51 00			

2 Flamboro', West	do		15 50			
5 Glenelg	do		27 50			
7 do with 6 Artemesia	do		10 00			
1 Gloucester with 3 Osgoode	do		10 50			
4, 5 & 12 Gloucester	do		13 00			
14 do	do		58 50			
17 do	do		5 00			
1 Grattan, etc.	do		85 00			
21 Haldimand	do		21 00			
9 Harwich	do		23 00			
2 Hawkesbury, East	do		27 50			
4 do	do		17 00			
7 do	do		82 00			
10 do	do		29 50			
12 do	do		11 00			
15 do South	do		19 00			
16 do	do		7 00			
4 do West	do		79 50			
1, (3) Hibbert	do		24 50			
2 Hullett	do		11 00			
3 Holland, Glenelg, etc.	do		15 00			
12 Innisfil with Town of Barrie	do		9 00			
8 Kingston	do		18 00			
7 Kitley	do		4 00			
4 Lancaster	do		20 00			
4 W. Longueuil	do		21 00			
12 (B) Lochiel	do		59 00			
12 (A) do	do		14 50			
4 Maidstone with 2 Rochester	do		30 00			
3 Malden	do		39 00			
3 (B) do	do		33 00			
3 Mara	do		59 50			
3 4 & 5 Moore	do		17 00			
4 Mornington	do		25 50			
3 March	do		15 50			
1 Marmora and Lake	do		20 50			
1 Mattawa	do		122 79			
1 McGillivray with 9 Biddulph	do		6 00			
1 McKillop	do		26 50			
1 McKim	do		39 89			
7 Nepean	do		37 00			
15 (B) do	do		29 00			
1 Nichol	do		33 00			
5 Normanby	do		31 50			
10 do	do		25 50			
Carried forward			14,865 43	226,906 71		697,952 61

EDUCATION—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	14,865 43	226,906 71	.....	697,952 61
	SEPARATE SCHOOLS—*Continued.*				
Trustees School Section—					
1 Osgoode.....	Allowance *re* Separate Schools	21 50			
2 (15) do	do	23 00			
3 do with 1 Gloucester.....	do	9 50			
10 Otonabee.....	do	15 50			
2 Papineau.....	do	9 48			
8 Peel	do	9 50			
12 do	do	35 00			
5 Percy	do	12 50			
12 do with 12 Seymour.	do	5 50			
7 Plantagenet South	do	45 50			
8 do with 7 Alfred	do	13 50			
9 Plantagenet North	do	24 50			
6 Proton.....	do	37 00			
4 Raleigh	do	31 50			
5 do	do	25 50			
6 do	do	45 00			
1 Rat Portage.....	do	15 50			
10 and 17 Richmond	do	10 00			
2 Rochester with 4 Maidstone.....	do	19 00			
12 Roxburgh	do	55 00			
6 Russell	do	82 00			
1 do & 12 Winchester.	do	4 50			
12 Seymour with 12 Percy.	do	7 50			
5 Sheffield.....	do	17 50			
5 Sombra	do	28 00			
2 Stafford	do	31 00			
7 Stamford	do	27 00			
6 Stephen	do	44 00			
7 Sydenham	do	26 00			
2 Tiny	do	85 50			
6 Toronto Gore	do	20 00			
1 E. and W. Tilbury....	do	43 00			

1 Tilbury with 1 Tilbury East	do		16 00		
7 Vespra	do		10 50		
13 Waterloo	do		92 00		
1 Wawanosh, West	do		24 00		
9 and 10 Wellesley	do		23 50		
5 do	do		16 50		
11 do	do		63 00		
12 do	do		16 50		
13 Westminster	do		24 50		
10 W. Williams	do		26 00		
1 Widdifield	do		50 78		
15½ Wilmot	do		44 00		
8 Windham	do		24 00		
1 Wolfe Island	do		17 00		
2 do	do		26 50		
4 do	do		34 00		
4 Yonge	do		5 50		
1 York	do		27 50		
				16,286 69	
	EXPENSES.				
W. Briggs	Books on Aims and Objects of Humane Society		40 00		
Warwick & Sons	Printing, and letter books		164 16		
Hon. G. W. Ross	Travelling expenses		280 00		
M. T. C. Meiklejohn	Services copying, etc		28 00		
Toronto Lithographing Co	Lithographing		50 00		
Grip Printing and Publishing Co	Advertising		75 00		
H. C. Dixon	Postage stamps		202 00		
				839 16	
					244,032 56
	POOR SCHOOLS.				
Treasurer County of—					
Bruce	Allowance *re* Poor Schools			123 00	
Dufferin	do			120 00	
Frontenac	do			200 00	
Haliburton	do			2,068 00	
Lennox and Addington	do			476 00	
do	Special grant for Denbigh school house			50 00	
Ontario	Allowance *re* Poor Schools			300 00	
Peterborough	do			200 00	
Victoria	do			200 00	
Trustees, School Section—					
7 Admaston	do			80 00	
9 do	do			40 00	
	Carried forward			3,857 00	244,032 56	697,952 61

EDUCATION—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		3,857 00	244,032 56	697,962 61
	POOR SCHOOLS—*Continued.*				
Trustees, School Section—					
1 Aird Island	Allowance *re* Poor Schools		32 00		
1 Algoma South	do		96 00		
4 do	do		96 00		
2 Allan	do		32 00		
2 Alice	do		48 00		
5 do	do		72 00		
6 do	do		40 00		
1 Anderdon	do		50 00		
1 Armour	do		40 00		
2 do	do		40 00		
3 do	do		40 00		
4 do	do		40 00		
5 do	do		40 00		
10 Arthur	do		40 00		
1 Assignack	do		24 00		
2 do	do		24 00		
3 do	do		32 00		
6 do	do		32 00		
7 do	do		32 00		
24 Augusta	do		8 00		
1 Barrie	do		16 00		
2 do	do		16 00		
4 do	do		16 00		
5 do	do		16 00		
6 do	do		16 00		
1 do Island	do		28 00		
1 Bangor	do		35 23		
2 do	do		32 51		
5 do	do		28 90		
13 Bathurst	do		16 00		
1 Beaver Mines	do		32 00		
4 Bidwell	do		36 00		
5 Bedford	do		10 00		
8 do	do		10 00		
1 Billings & Allan	do		28 00		
2 do	do		64 00		

| | | |

EDUCATION—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		8,506 85	244,632 56	697,952 61
	POOR SCHOOLS—*Continued.*				
Trustees, School Section—					
9 Chaffey	Allowance *re* Poor Schools		80 00		
10 (U) do	do		100 00		
Christie School Board	do		146 00		
1 Clarendon & Miller	do		60 00		
2 do	do		64 00		
3 do	do		52 00		
8 do	do		52 00		
9 do	do		68 00		
10 do	do		30 00		
19 Clarke	do		20 00		
1 Cobden	do		36 00		
1 Cockburn Island	do		32 00		
2 do	do		40 00		
1 Coffin & Galbraith	do		28 00		
2 Coffin	do		32 00		
1 Croft	do		40 00		
2 do	do		32 00		
7 Crosby, North	do		16 00		
8 do	do		16 00		
1 Dalhousie	do		16 00		
5 (U) do	do		16 00		
9 do	do		16 00		
10 do	do		32 00		
145 Darling	do		60 00		
1 Dawson	do		40 00		
1 Day and Gladstone	do		28 00		
2 Day and Kirkwood	do		40 00		
1 Dungannon & Faraday	do		21 66		
2 do	do		18 07		
3 do	do		13 55		
4 do	do		21 66		
5 do	do		18 07		
6 do	do		21 66		
7 do	do		21 66		
8 do	do		16 25		
9 do	do		31 60		

16	Dunwich	do					80	00		
1	Draper	do					40	00		
2	do	do					40	00		
3	do	do					40	00		
4	do	do					40	00		
5	do	do					40	00		
6	do	do					40	00		
7	do	do					40	00		
20	Edwardsburg	do					16	00		
23	do	do					16	00		
11	Ekfrid	do					100	00		
2	Elzevir	do					13	84		
5	do	do					18	46		
6	do	do					18	46		
7	do	do					9	24		
12	Escott Front	do					16	00		
13	do	do					16	00		
1	Fenwick	do					28	00		
1	Fernie	do					32	00		
12	Flos	do					25	00		
1	Ferris	do					48	00		
1	Fort Francis	do					80	00		
1	and 2 Fort William	do					64	00		
1	Foley	do					32	00		
2	do	do					40	00		
3	do	do					40	00		
4	do	do					32	00		
2	Franklin	do					80	00		
3	do	do					80	00		
1	French River	do					40	00		
2	Grattan	do					72	00		
3	do	do					48	00		
6	do	do					60	00		
7	do	do					60	00		
9	do	do					60	00		
1	Gladstone & Bright	do					32	00		
21	Gloucester	do					20	00		
26	do	do					20	00		
1	Gibson	do					96	00		
1	Gordon	do					28	00		
3	do	do					24	00		
4	do	do					32	00		
9	N. Gower	do					12	00		
1	Goulbourn	do					16	00		
1	Griffith	do					20	00		
1	Gurd	do					32	00		
18	Hamilton	do					60	00		
1	Hagerman	do					40	00		
2	do	do					40	00		
			Carried forward				11,860	03	244,032	56
										697,952 61

EDUCATION—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		11,860 03	244,032 56	697,952 61
	POOR SCHOOLS—*Continued.*				
Trustees, School Section—					
3 Hagerman	Allowance *re* Poor Schools		40 00		
1 Hagarty	do		40 00		
3 do	do		80 00		
7 do	do		64 00		
11 do	do		80 00		
1 Head	do		40 00		
4 do	do		36 00		
1 Himsworth, South	do		32 00		
2 do	do		32 00		
5 do	do		50 00		
6 do	do		50 00		
3 do North	do		40 00		
4 do	do		40 00		
1 Howland	do		32 00		
2 do	do		28 00		
3 do	do		40 00		
5 do	do		32 00		
6 do	do		32 00		
1 Humphrey	do		32 00		
2 do	do		32 00		
3 do	do		60 00		
15 Huntingdon	do		20 00		
7 Huntley	do		16 00		
4 Hungerford	do		20 00		
20 do	do		20 00		
21 do	do		20 00		
22 do	do		20 00		
1 Ignace	do		40 00		
5 Innisfil	do		50 00		
4 Jocelyn	do		32 00		
1 Johnston	do		40 00		
2 do	do		40 00		
1 Joly	do		25 00		
2 do	do		50 00		
1 Keewatin	do		80 00		
4 Kennebec	do		28 00		

| | | |

EDUCATION—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		15,027 24	244,032 56	697,952 61
	POOR SCHOOLS—*Continued.*				
Trustees, School Section—					
4 Monteagle & Herschel.	Allowance *re* Poor Schools		8 14		
5 do	do		16 72		
6 do	do		7 23		
7 do	do		13 55		
8 do	do		24 84		
7 Montague	do		16 00		
8 do	do		16 00		
9 do	do		16 00		
10 do	do		16 00		
11 do	do		16 00		
14 do	do		16 00		
15 Mornington	do		60 00		
Morrison School Board	do		280 00		
2 Muskoka	do		60 00		
3 do	do		60 00		
6 do	do		60 00		
1 McDonald	do		100 00		
2 McDonald & Meredith	do		24 00		
2 McDougall	do		40 00		
3 do	do		40 00		
4 do	do		32 00		
1 McKellar	do		40 00		
3 do	do		40 00		
4 do	do		40 00		
1 McKenzie	do		24 00		
1 McKim	ko		56 00		
2 McClure	do		23 50		
Macaulay Tp. Board	do		280 00		
1 McMurrich	do		40 00		
2 do	do		40 00		
3 do	do		25 00		
4 do	do		25 00		
5 do	do		40 00		
U 4 McLean	do		80 00		
1 Nipissing	do		25 00		
2 do	do		25 00		

3 do	do				
1 Oakley	do			24 00	
2 do	do			40 00	
1 Oliver	do			100 00	
2 do	do			32 00	
11 Orillia	do			32 00	
1 Oso	do			48 00	
2 do	do			32 00	
3 do	do			32 00	
4 do	do			32 00	
5 do	do			32 00	
6 do	do			16 00	
7 do	do			32 00	
8 do	do			16 00	
9 do	do			16 00	
2 Osgoode	do			32 00	
14 do	do			16 00	
21 Oxford	do			16 00	
1 Petewawa	do			20 00	
2 do	do			52 00	
Point Pelee	do			40 00	
1 Palmerston & N & S Canonto	do			40 00	
do	do			32 00	
3 do	do			32 00	
do	do			32 00	
do	do			32 00	
do	do			32 00	
6 Pakenham	do			32 00	
1 Papineau	do			32 00	
1 Patterson	do			56 00	
2 Parkinson & Gladstone	do			40 00	
1 Perry	do			100 00	
2 do	do			32 00	
3 do	do			40 00	
4 do	do			40 00	
5 do	do			48 00	
6 do	do			40 00	
7 do	do			32 00	
1 Plummer	do			40 00	
2 do and Rose	do			32 00	
3 Proton	do			32 00	
11 do	do			12 00	
14 do	do			12 00	
3 and 4 Rainy River	do			12 00	
5 do	do			80 00	
16 Ramsay	do			80 00	
1 and 2 Rat Portage	do			16 00	
1 Robinson	do			18 00	
				36 00	
Carried forward				18,505 22	244,032 56	697,952 61

EDUCATION—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		18,505 22	244,032 56	697,952 61
	POOR SCHOOLS—*Continued.*				
Trustees, School Section—					
1 Rutherford	Allowance *re* Poor Schools		80 00		
1 Ryerson	do		32 00		
2 do	do		32 00		
3 do	do		40 00		
4 do	do		32 00		
4 Radcliffe	do		52 00		
7 do	do		28 00		
8 do	do		60 00		
1 Rolph	do		48 00		
3 B do	do		68 00		
3 R do	do		64 00		
6 do	do		56 00		
2 Ridout	do		40 00		
3 do	do		40 00		
1 Ryde	do		40 00		
2 do	do		40 00		
3 do	do		40 00		
4 do	do		40 00		
5 do	do		40 00		
7 do	do		40 00		
1 Sandfield	do		36 00		
2 do	do		36 00		
4 do	do		36 00		
1 Scribner	do		36 00		
5 Shequinandah	do		40 00		
Sherbrooke Township	do		80 00		
1 Sinclair	do		80 00		
2 do	do		80 00		
4 do	do		80 00		
1 Slater	do		100 00		
3 Southwold	do		64 00		
21 do	do		80 00		
7 Stafford	do		86 00		
2 Stisted	do		60 00		
2 (U) do	do		60 00		
3 do	do		80 00		

| | | |

EDUCATION—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		22,308 97	244,032 56	697,952 61
	POOR SCHOOLS—*Continued.*				
Trustees, School Section—					
9 Tudor and Cashel	Allowance *re* Poor Schools		9 94		
25 Tyendinaga	do		20 00		
1 Victoria	do		32 00		
12 Wallace	do		30 00		
1 Wallbridge	do		48 00		
2 do	do		48 00		
1 Watt	do		40 00		
2 do	do		80 00		
3 do	do		48 00		
4 do	do		20 00		
5 do	do		40 00		
7 do	do		75 00		
1 Wells	do		40 00		
2 do	do		100 00		
13 Westmeath	do		36 00		
4 Wicklow	do		28 90		
1 Widdifield	do		56 00		
1 Wilson	do		48 00		
1 Wood	do		60 00		
1 Wollaston	do		18 51		
2 do	do		17 61		
6 do	do		15 35		
8 do	do		9 49		
10 do	do		7 23		
3 Wilberforce	do		48 00		
7 do	do		80 00		
18 do	do		60 00		
5 Yonge Front	do		15 00		
Trustees Roman Catholic School Section—					
6 & 7 Artemesia & Glenelg	do		50 00		
1 Bonfield	do		60 00		
6 Burgess North	do		30 00		
3, 4 and 10 Caledonia	do		30 00		
7 N. Crosby	do		100 00		

2 Edwardsburg	do		35 00	
2 Elora	do		75 00	
2 W. Flamboro'	do		30 00	
21 Haldimand	do		55 00	
12 B. Lochiel	do		50 00	
4 W. Longueuil	do		30 00	
14 Lancaster	do		30 00	
L'Orignal	do		35 00	
1 Nichol	do		45 00	
1 Osgoode	do		35 00	
10 Otonabee	do		25 00	
2 Papineau	do		35 00	
8 Peel	do		30 00	
7 N. Plantagenet	do		40 00	
6 Russell	do		50 00	
Sault Ste. Marie	do		40 00	
7 Stamford	do		30 00	
1 Springer	do		20 00	
10 W. Williams	do		75 00	
1 Widdifield	do		50 00	
Weston	do		25 00	
4 Yonge and Escott	do		30 00	
Copp, Clark & Co.	Tablet lessons		100 00	
Warwick & Sons	Printing and binding		14 73	
H. C. Dixon	Postage stamps		129 00	
Map & School Supply Co.	Mounting maps		113 20	
				24,931 93
The Public School Board of Trustees—		MODEL SCHOOLS.		
Athens	Allowance *re* Model Schools		150 00	
Barrie	do		150 00	
Beamsville	do		150 00	
Berlin	do		150 00	
Bracebridge	do		150 00	
Bradford	do		150 00	
Brampton	do		150 00	
Brantford	do		150 00	
Caledonia	do		150 00	
Chatham	do		150 00	
Clinton	do		150 00	
Cobourg	do		150 00	
Cornwall	do		150 00	
Durham	do		150 00	
Elora	do		150 00	
Forest	do		150 00	
Galt	do		150 00	
Gananoque	do		150 00	
Goderich	do		150 00	
		Carried forward	2,850 00	268,964 49	697,952 61

EDUCATION—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		2,850 00	268,964 49	697,952 61
The Public School Board of Trustees—	MODEL SCHOOLS—*Continued.*				
Hamilton	Allowance *re* Model Schools		150 00		
Ingersoll	do		150 00		
Kincardine	do		150 00		
Kingston	do		150 00		
Lindsay	do		150 00		
London	do		150 00		
Madoc	do		150 00		
Martintown	do		150 00		
Meaford	do		150 00		
Milton	do		150 00		
Minden	do		125 00		
Mitchell	do		150 00		
Morrisburg	do		150 00		
Mount Forest	do		150 00		
Napanee	do		150 00		
Newmarket	do		150 00		
Norwood	do		150 00		
Orangeville	do		150 00		
Owen Sound	do		150 00		
Perth	do		150 00		
Picton	do		150 00		
Port Hope	do		150 00		
Port Perry	do		150 00		
Prescott	do		150 00		
Renfrew	do		150 00		
Richmond	do		150 00		
St. Thomas	do		150 00		
Sarnia	do		150 00		
Simcoe	do		150 00		
Stratford	do		150 00		
Strathroy	do		150 00		
Toronto	do		150 00		
Vankleekhill	do		150 00		
Welland	do		150 00		
Walkerton	do		150 00		
Whitby	do		150 00		

Windsor	do		150 00		
Woodstock	do		150 00		
West Toronto Junction	do		150 00		
Warwick & Sons	Printing and binding		24 71		
				8,699 71	
	TEACHERS' INSTITUTES.				
The Public School Inspector—					
Algoma	Allowance *re* Teachers' Institutes	75 00			
Brant	do	50 00			
Bruce, East	do	50 00			
Bruce, West	do	25 00			
Carleton	do	50 00			
Dufferin	do	50 00			
Dundas	do	50 00			
Durham	do	25 00			
Elgin	do	25 00			
Essex, South	do	75 00			
Frontenac	do	50 00			
Grenville	do	25 00			
Grey, East	do	50 00			
Grey, South	do	75 00			
Grey, North	do	50 00			
Glengarry	do	50 00			
Haliburton	do	50 00			
Hastings, North	do	25 00			
Hastings, South	do	45 00			
Halton	do	25 00			
Haldimand	do	25 00			
Huron, East	do	25 00			
Huron, South	do	50 00			
Hamilton	do	25 00			
Kent, East	do	50 00			
Kent, West	do	50 00			
Kingston	do	25 00			
Lambton, East	do	25 00			
Lambton, West	do	25 00			
Lanark	do	50 00			
London	do	25 00			
Lennox and Addington	do	50 00			
Leeds	do	25 00			
Lincoln	do	25 00			
Middlesex, East	do	25 00			
Middlesex, West	do	50 00			
Muskoka	do	75 00			
Norfolk	do	50 00			
Northumberland	do	25 00			
Ontario	do	50 00			
Oxford	do	50 00			
	Carried forward	1,720 00		277,664 20	697,952 61

EDUCATION—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	1,720 00		277,664 20	697,952 61
	TEACHERS' INSTITUTES—*Continued.*				
The Public School Inspector—					
Parry Sound	Allowance *re* Teachers' Institutes	75 00			
Peel	do	50 00			
Peterboro'	do	70 00			
Prescott and Russell	do	25 00			
Prince Edward	do	50 00			
Renfrew	do	25 00			
Simcoe, North	do	25 00			
Simcoe, East	do	25 00			
Simcoe, South	do	25 00			
Stormont	do	25 00			
Toronto	do	25 00			
Victoria, East	do	50 00			
Victoria, West	do	25 00			
Waterloo	do	50 00			
Wellington, North	do	25 00			
Wellington, South	do	25 00			
Welland	do	50 00			
Wentworth	do	25 00			
York, North	do	25 00			
York, South	do	50 00			
Provincial Teachers' Institute	do	200 00			
			2,665 00		
Copp, Clark Co	Blank books	3 78			
H. C. Dixon	Postage stamps	66 00			
W. J. Summerby	Services and expenses *re* Plantagenet Institute	56 10			
T. Kirkland	Travelling expenses attending U. S. National Educational Association	96 00			
T. H. McGuirl	do lecturing	6 00			
W. Scott	do do	6 00			
			233 88		
				2,898 88	
	HIGH SCHOOLS AND COLLEGIATE INSTITUTES.				
Treasurer, High School Board					
Alexandria	Allowance *re* High Schools and Collegiate Institutes		451 93		
Almonte	do		662 32		

Arnprior	do			555 93		
Aylmer	do			1,050 06		
Athens	do			349 93		
Aurora	do			483 44		
Barrie	do			1,351 81		
Beamsville	do			488 13		
Belleville	do			921 87		
Berlin	do			925 44		
Bowmanville	do			747 99		
Bradford	do			506 43		
Brampton	do			916 68		
Brantford	do			1,601 94		
Brighton	do			506 56		
Brockville	do			735 75		
Caledonia	do			628 75		
Campbellford	do			679 12		
Carleton Place	do			590 81		
Cayuga	do			480 25		
Chatham	do			1,523 60		
Clinton	do			1,243 94		
Cobourg	do			1,234 06		
Collingwood	do			1,450 56		
Colborne	do			518 18		
Cornwall	do			722 50		
Dundas	do			582 68		
Dunnville	do			621 50		
Elora	do			510 65		
Dutton	do			627 62		
Essex Centre	do			583 21		
Farmersville	do			361 50		
Fergus	do			550 46		
Galt	do			1,595 13		
Gananoque	do			575 09		
Goderich	do			883 12		
Guelph	do			1,474 38		
Georgetown	do			474 00		
Glencoe	do			323 25		
Grimsby	do			486 12		
Hamilton	do			1,686 62		
Harriston	do			738 93		
Hawkesbury	do			524 06		
Ingersoll	do			1,198 60		
Kingston	do			1,437 50		
Lindsay	do			1,462 69		
London	do			1,672 88		
Iroquois	do			716 06		
Kemptville	do			700 88		
Kincardine	do			717 49		
Carried forward				41,892 40	280,563 08	697,952 61

EDUCATION—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		41,892 40	280,563 08	697,952 61
	HIGH SCHOOLS AND COLLEGIATE INSTITUTES—*Continued.*				
Treasurer, High School Board Listowel	Allowance *re* High Schools and Collegiate Institutes		663 29		
Markham	do		515 18		
Mitchell	do		686 44		
Morrisburg	do		984 31		
Mount Forest	do		806 31		
Napanee	do		934 74		
Newburgh	do		499 13		
Newcastle	do		462 75		
Newmarket	do		660 49		
Niagara	do		491 94		
Niagara Falls, South	do		494 38		
Norwood	do		578 00		
Oakville	do		544 50		
Oakwood	do		436 56		
Omemee	do		470 50		
Orangeville	do		835 12		
Orillia	do		711 50		
Oshawa	do		832 31		
Ottawa	do		1,671 94		
Owen Sound	do		1,672 93		
Paris	do		676 25		
Parkhill	do		598 56		
Pembroke	do		705 62		
Perth	do		1,208 63		
Peterboro'	do		1,348 24		
Petrolea	do		748 56		
Picton	do		798 65		
Port Hope	do		844 50		
Port Dover	do		483 31		
Port Perry	do		827 37		
Port Rowan	do		463 00		
Prescott	do		485 68		
Port Arthur	do		430 81		
Parkdale	do		1,009 05		
Renfrew	do		582 32		
Richmond Hill	do		495 75		

Ridgetown	do		1,304 68		
Sarnia	do		852 81		
Seaforth	do		1,303 00		
Simcoe	do		667 24		
Smith's Falls	do		612 13		
Smithville	do		501 00		
Streetsville	do		480 13		
Stirling	do		560 18		
Stratford	do		1,561 50		
Strathroy	do		1,434 12		
St. Catharines	do		1,649 06		
St. Mary's	do		1,297 56		
St. Thomas	do		1,619 12		
Sydenham	do		560 19		
Thorold	do		533 69		
Trenton	do		679 31		
Tilsonburgh	do		542 50		
Toronto	do		1,711 43		
Uxbridge	do		686 81		
Vankleekhill	do		522 63		
Vienna	do		499 50		
Walkerton	do		911 62		
Wardsville	do		495 50		
Waterdown	do		492 75		
Welland	do		669 31		
Weston	do		519 06		
Whitby	do		1,371 18		
Williamstown	do		517 40		
Windsor	do		780 25		
Woodstock	do		1,458 19		
Port Arthur	Special grant		500 00		
R. F. Gagen	Services *re* Art in High Schools		50 00		
J. H. McFaul	do		40 00		
D. B. Dick	do		10 00		
Warwick & Sons	Printing forms and circulars		34 58		
Copp, Clark Co'y	Certificate forms		100 00		
Hon. G. W. Ross	Travelling expenses		225 00		
H. R. Alley	do		60 00		
				96,364 45	
	TRAINING INSTITUTES.				
Board of Trustees, Collegiate Institute—					
Guelph	Allowance *re* Training Institutes		400 00		
Hamilton	do		400 00		
Kingston	do		400 00		
Owen Sound	do		400 00		
Strathroy	do		400 00		
Warwick & Sons	Printing		10 29		
	Carried forward		2,010 29	376,927 53	697,952 61

EDUCATION—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	.....	2,010 29	376,927 53	697,952 61
	TRAINING INSTITUTES—*Continued.*				
H. C. Dixon	Postage stamps	.....	80 00		
Dominion Express Co	Charges	.....	1 65		
Sundry persons	To pay express charges	.....	1 65		
S. Kew	Services as pressman *re* examination papers	.....	6 00		
				2,099 59	
	INSPECTION OF NORMAL, HIGH, MODEL, PUBLIC AND SEPARATE SCHOOLS.				
	Inspection of Normal, High and Model Schools.				
J. A. McLellan	Twelve months' salary as Inspector of Normal Schools and Director of Teachers' Institutes	2,600 00			
J. E. Hodgson	Twelve months' salary as Inspector of High Schools	2,500 00			
John Seath	do do	2,500 00			
J. J. Tilley	do County Model Schools	1,750 00			
Warwick & Sons	Printing and binding	254 96			
J. Notman	Stationery	1 40			
Copp, Clark Co	Reference books	3 64			
Alex. Steele	Services and expenses *re* Training Institutes	34 50			
J. G. Hodgins	Travelling expenses *re* Kemptville High School	23 60			
J. A. McLellan	Travelling expenses	400 00			
J. J. Tilley	do	150 00			
J. Seath	do	400 00			
J. E. Hodgson	do	400 00			
J. Seath	do visiting U. S. Schools	159 05			
W. H. Brothers	Witness fees *re* Collingwood investigation	1 80			
D. J. Wright	do	8 50			
Sundry persons	do	81 48			
Sheriff McConkey	Fees serving subpœnas *re* Collingwood Investigation	13 36			
W. P. Laverrock	Services taking down deposition do	2 50			
Rev. Thos. McKee	Services and expenses procuring witnesses *re* Collingwood investigation	6 50			
W. Haldane	Law stamps do	1 10			
			11,292 39		

INSPECTION OF PUBLIC AND SEPARATE SCHOOLS.

Rev. Geo. Grant	Twelve months' salary as Inspector of Public Schools, Parry Sound		1,500 00			
D. McCaig	do	do Algoma	1,500 00			
J. F. White	do	Separate Schools	1,700 00			
C. Donovan	do	do	1,700 00			
Alexander, W	Salary as Inspector		687 50			
Atkin, W	do		667 50			
Ball, J. H	do		480 00			
Barnes, C. A	do		495 00			
Brown, J. C	do		386 25			
Brebner, J	do		594 75			
Brown, A	do		472 50			
Blair, Rev. G., M.A	do		395 00			
Burrows, F	do		610 00			
Campbell, A	do		570 00			
Campbell, N. W	do		561 25			
Clendenning, W. S	do		600 09			
Carson, J. S	do		461 25			
Coyle, J	do		126 25			
Curry, C. D	do		277 50			
Carlyle, W	do		477 50			
Colles, W. G	do		440 00			
Clapp, D. P., B.A	do		500 00			
Craig, J. J	do		400 00			
Davidson, A. B	do		510 00			
Day, Isaac	do		557 50			
Deacon, J. S	do		447 50			
Dearness, J	do		568 75			
Embury, A	do		547 50			
Fotheringham, D	do		588 75			
Grey, J. B	do		415 00			
Gordon, N	do		593 75			
Grier, A	do		305 00			
Girardot, T	do		308 75			
Gordon, T	do		182 50			
Johnston, W., M.A	do		505 00			
Johnston, J	do		520 00			
Kinney, R., M.D	do		435 00			
Knight, J. H	do		325 00			
Kelly, M. J., M.D	do		411 25			
McDiarmid, D	do		405 00			
McNaughton, A	do		421 25			
McBrien, J	do		735 00			
McKee, Rev. T	do		611 25			
Mackintosh, W	do		527 50			
Michel, F.L., B. A	do		826 25			
Moses, C	do		482 50			
Malloch, D. McG	do		613 75			
		Carried forward	27,476 00	11,292 39	379,027 12	697,952 61

EDUCATION—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	27,476 00	11,292 39	379,027 12	697,952 61
	INSPECTION OF PUBLIC AND SEPARATE SCHOOLS—*Con.*				
Maxwell, D. A	Salary as Inspector	388 75			
Morgan, J. C	do	457 50			
Nichol, Wm., B.A	do	396 00			
Platt, G. D	do	476 25			
Pearce, T	do	630 00			
Reazin, H	do	1,076 25			
Steele, T. O	do	80 00			
Summerby, W. J	do	732 50			
Smith, J. H	do	530 00			
Smirle, A	do	493 75			
Scott, R. G., B.A	do	785 00			
Spankie, W., M.D	do	712 50			
Scarlett, E	do	646 25			
Tilley, W. E	do	628 75			
Tom, J. E	do	547 50			
Wadsworth, J. J., M.B	do	551 25			
H. Reazin	Services and Expenses, *re* Inspection in remote districts	25 88			
Isaac Day	do do	18 70			
R. G. Scott	do do	28 50			
P. McCurry	do do	41 50			
Nipissing *Times*	Advertising do do	12 16			
Warwick & Sons	Printing and binding	436 54			
J. Notman	Stationery	113 42			
H. C. Dixon	Postage stamps	149 00			
D. Clapp	Refund of postage	3 04			
Rev. Geo. Grant	Travelling expenses	375 00			
J. F. White	do	400 00			
C. Donovan	do	467 92			
W. H Ballard	do	141 85			
D. McCaig	do	404 85			
M. J. Kelly, M.D	do	55 00			
W. J. Summerby	do	20 00			
O. Dufort	do	30 60			
R. Ramsay Wright	Services and Expenses, *re* School of Zoology	271 75			
W. Keith	do *re* S. S. 3 Wallace and Grey	6 40			
R. G. Roberts	do do	7 60			

J. Tudhope	do do do	6 00			
W. H. Fraser	Services preparing Examination Papers	20 00			
J. G. Hodgins	Travelling Expenses, *re* Mitchell investigation	12 55			
W. W. Welden	Subpœnas do	1 10			
			39,657 61		
				50,950 00	
	DEPARTMENTAL EXAMINATIONS.				
G. P. Young	Services as Chairman of Central Committee of Examiners	58 00			
M. J. Kelly	do Examiners	300 00			
W. H. Ballard	do do	300 00			
G. A. Rose	Twelve months' salary as Printer and Assistant	900 00			
S. A. May	do Clerk	700 00			
			2,258 00		
Andrews, A	Services and expenses as Sub-Examiner	61 34			
Armstrong, T. C. L	do	62 00			
Burt, A. W	do	102 41			
Babington, F. W	do	24 90			
Broderick, G. E	do	93 41			
Briden, W	do	95 42			
Barron, R. A	do	94 44			
Clapp, D. P	do	63 60			
Cruickshank, A. D	do	56 90			
Chase, G. A	do	97 25			
Cody, W. S	do	99 26			
Craig, J. J	do	64 61			
Colles, W. H. G	do	71 85			
Corbett, L. C	do	102 91			
Chamberlain, A. F	do	139 12			
Connor, J. W	do	100 46			
Campbell, N. C	do	95 86			
Clark, M. S	do	86 14			
Chase, G. A	do	86 38			
Carscadden, T	do	66 87			
Christie, J. D	do	95 28			
Carruthers, R	do	93 50			
Davidson, J	do	49 14			
Davidson, A. B	do	43 64			
Dunlop, J. C	do	31 87			
DeLury, A	do	141 50			
Davies, H. W	do	79 50			
Dickson, J. E	do	89 94			
Elliott, W	do	99 90			
Embree, L. E	do	73 77			
Fessenden, C	do	77 13			
Fowler, J	do	108 33			
Fraser, W. H	do	92 32			
Fairclough, H. R	do	99 32			
Forrest, W	do	43 03			
	Carried forward	2,883 30	2,258 00	429,977 12	697,952 61

EDUCATION—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	2,883 30	2,258 00	429,977 12	697,952 61
	DEPARTMENTAL EXAMINATIONS—*Continued.*				
Fenwick, M. M.	Services and expenses as Sub-Examiner	188 69			
Grey, J. B	do	61 90			
Houston, J. A.	do	55 99			
Hick, R. W	do	48 71			
Haultain, T. A.	do	18 80			
Haggarty, E. W.	do	92 93			
Houston, J	do	93 23			
Harston, J. C	do	115 34			
Johnston, W	do	55 89			
Johnson, G. W.	do	62 50			
Knight, A. P.	do	33 99			
Keys, D. R.	do	29 86			
Knight, A. G.	do	97 48			
Levan, J. M	do	104 47			
Long, J. H.	do	104 79			
McNaughton, A.	do	72 90			
McGregor, P. C	do	104 84			
MacMurchie, J.	do	92 96			
McGowan, J.	do	102 20			
McKay, A. C	do	157 63			
Mackenzie, J. J	do	97 04			
McHenry, D. C.	do	93 35			
McGill, A.	do	55 59			
McLean, J. A.	do	44 00			
McMillan, A	do	89 31			
Mulvey, T.	do	29 79			
Merchart, F. W	do	88 65			
Mill, W. J	do	43 50			
Morgan, J	do	94 51			
Mulloy, C. W	do	92 06			
Mustard, W. P.	do	96 90			
Nicholson, A. B.	do	98 47			
Oliver, W	do	29 40			
Paterson, D. S.	do	108 84			
Rutherford, W. W	do	111 21			
Robertson, N.	do	95 78			

Stirling, J.	do	56 71		
Sinclair, A.	do	112 79		
Stuart, J. R.	do	64 34		
Sutherland, J.	do	44 45		
Stuart, C. A.	do	46 70		
Sullivan, D. C.	do	103 50		
Strong, H. J.	do	95 44		
Steele, A.	do	87 29		
Smith, L. C.	do	89 83		
Smellie, W. K. T.	do	99 21		
Spotton, H. B.	do	94 03		
Smith, G. A.	do	94 00		
Tilley, W. E.	do	62 69		
Turnbull, J.	do	96 71		
Tamblyn, W. H.	do	92 38		
Whitton, J. G.	do	88 72		
Wellwood, N. G.	do	38 61		
Wilkins, D. F. H.	do	86 71		
Wait, F. G.	do	27 29		
Wismer, J. A.	do	57 25		
Wetherell, J. E.	do	104 16		
Williams, W.	do	100 57		
Yeomans, J. R.	do	46 59		
Platt, G. D.	Service, *re* N. S. Examinations	72 45		
R. H. Cairns	Services and expenses as Examiner at Little Current	36 25		
Vandersmissen, W. H.	do examination papers	20 00		
Hart, Miss C.	do as Examiner and Superintendent of Kindergarten	400 00		
Newcombe, L. T.	do and expenses *re* Kindergarten Examination	65 50		
Jas. Bain & Son	Drawing paper do	8 25		
			8,139 22	
S. Kew	Services as Pressman	132 00		
F. N. Nudel	Services as Clerk	100 00		
			232 00	
Warwick & Sons	Printing	683 04		
Rowsell & Hutchison	Printing Greek and Latin Examination Papers	24 80		
Gwatkin & Son	Type, etc.	98 07		
Diamond Stove Co.	Printers' supplies	10 59		
			816 50	
J. Notman	Stationery	556 97		
A. Jeffery	Postage stamps	12 00		
H. C. Dixon	do	108 50		
Copp, Clark Co.	Reference books	1 13		
			678 60	
S. Rogers	Fuel for engine	4 03		
do	Oil for press	9 11		
S. Kew	Packing engine	1 00		
Warwick & Sons	Tags	2 05		
Ontario Cotton Co.	Bags	43 50		
			59 69	
	Carried forward		12,184 01	429,977 12	697,952 61

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17

EDUCATION—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	....	12,184 01	429,977 12	697,952 61
	DEPARTMENTAL EXAMINATIONS—*Continued.*				
Express Co	Charges	19 67			
Sundry persons	To pay express charges	18 25			
G. T. Railway Co	Freight charges	70			
Sundry persons	Car tickets	2 10			
			40 72		
Sheriff Hossie	Serving Subpœnas		15 51		
J. T. Green	Expenses notifying examiners		80		
A. H. Ewing	Expenses, *re* bontanical specimens		55		
J. Mackenzie	Services preparing botany papers		10 00		
Miss C. Hart	Travelling expenses		62 00		
Canada *Educational Monthly*	Advertising, *re* examination papers		12 00		
Educational Journal	do		100 00		
Manitoulin *Expositor*	do		2 00		
Algoma *Advocate*	do		8 40		
				12,435 99	
	NORMAL AND MODEL SCHOOLS, TORONTO.				
	SALARIES.				
T. Kirkland	Twelve months' salary as Principal and Science Master		2,250 00		
J. Carlyle	do Second Master		1,900 00		
J. H. McFaul	do Drawing do		1,000 00		
Miss N. Gilmayer	do French do		150 00		
S. H. Preston	do Music do		800 00		
T. Parr	do Drill and Gymnastic Master		300 00		
A. McIntosh	do Head Master Boys' Model School		1,400 00		
R. W. Murray	do First Assistant do		1,000 00		
T. M. Porter	do Second do do		850 00		
Miss M. Rose	do Third do do		650 00		
Miss J. Wood	Three do Fourth do do		162 00		
Miss M. T. Scott	Twelve do Head Mistress Girls' Model School		1,000 00		
Miss K. F. Hagarty	do First Assistant do		800 00		
Miss M. Meehan	do Second do do		700 00		
Miss M. K. Caulfeild	do Third do do		650 00		
Miss Ada E. Rose	do Fourth do do		650 00		

Miss C. M. Hart		do	Kindergarten Teacher		800 00		
Miss M. Ross	Seven	do	Assistant "		320 00		
Miss L. P. McKenzie	Four	do	do "		160 00		
A. H. Ewing	Twelve	do	Head Gardener (including allowance for rent)		718 00		
H. Blunt		do	Assistant Gardener		400 00		
R. McCallum		do	First Engineer		410 00		
J. A. Grainger		do	Second "		400 00		
J. Moore		do	Third "		400 00		
R. Gilpin		do	Janitor, Normal School		510 00		
T. Williamson		do	do Boys' Model School		400 00		
J. Abraham		do	do Girls' do		400 00		
						19,180 00	
			EXPENSES.				
Warwick & Sons			Printing and binding	90 39			
J. Notman			Stationery	365 71			
Selby & Co			do	195 65			
Brown Bros			do	5 10			
Cyclostyle Co			do	8 75			
J. S. Plaskett			do	50			
H. C. Dixon			Postage stamps	24 00			
					690 10		
Copp, Clark Co			Text-books, etc	470 85			
Anglo-Canadian Pub. Co			Music books	5 85			
					476 70		
Map and School Supply Co			Mounting Maps	60			
Challoner & Mitchell			Medals	40 00			
E. M. Trowern			do	49 50			
					90 10		
Selby & Co			Supplies *re* Kindergarten	209 98			
Miss C. M. Hart			do do	20 00			
E. L. Kellogg & Co			do do	2 50			
J. Davis			Clay for Models do	4 00			
Miss M. Warner			Services do	80 00			
Miss M. Warner			do do	30 00			
					346 48		
Elliot & Co			Skeleton	40 00			
Map and School Supply Co			Rubber tubing, etc	6 66			
H. Miller & Co			Chemicals, apparatus, etc	16 35			
					63 01		
Miss E. Beale			Services as substitute, Teacher, Model School	30 00			
Miss M. M. Garron			do do	10 00			
					40 00		
Fraser & McKeown			Legal services, etc., *re* McCallum *v* Burley		69 74		
A. McIntosh			Refund to Model School pupils		39 25		
do			Grant to annual games		25 00		
			Carried forward		1,840 38	461,593 11	697,952 61

EDUCATION—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		1,840 38	461,593 11	697,952 61
	NORMAL AND MODEL SCHOOLS—*Continued.*				
	EXPENSES—*Continued.*				
H. Blunt	Expenses *re* accident		25 00		
T. Kirkland	Expenses *re* Arbor Day		27 00		
Rose Cartage Co	Cartage		6 00		
G. T. Railway Co	Freight charges		3 17		
H. M. Wilkinson	To pay sundries		85		
Sundry newspapers	Advertising		21 75		
				1,924 15	
	NORMAL AND MODEL SCHOOLS, OTTAWA.				
	SALARIES.				
J. A. MacCabe	Twelve months' salary as Principal		2,250 00		
W. Scott	do Second Master		1,900 00		
T. H. McGuirl	do Drawing Master		800 00		
J. A. Guignard	do French Master		150 00		
W. G. Workman	do Music Master		800 00		
E. B. Cope	do Clerk and Accountant		600 00		
do	do Drill and Gymnastic Master		300 00		
E. D. Parlow	do Head Master Boys' Model School		1,400 00		
Thos. Swift	do First Assistant do		1,000 00		
R. H. Cowley	do Second do do		850 00		
M. Thomson	Eight months' salary as Third do do		433 00		
C. F. Sutherland	Four do do do do		217 00		
Miss A. Shenick	Twelve months' salary as Head Mistress Girls' Model School		1,000 00		
Miss M. G. Joyce	do First Assistant do		800 00		
Miss M. A. Mills	do Second do do		700 00		
Miss M. E. Butterworth	do Third do do		650 00		
W. Brethour	do First Engineer and Gardener		600 00		
J. Mooney	do Second do		450 00		
T. Bingham	do Laborer on grounds		400 00		
O. McDonald	do Janitor, Normal School		510 00		
H. R. McDonald	Three months' salary as Janitor, Boys' Model School		100 00		
J. Urquhart	Nine do do do		300 00		

J. McKay	Four do	Janitor, Girls do		133 00	
Jas. Dellaire	Eight do	do do		267 00	
E. Bolton	Twelve do	Kindergarten Teacher		800 00	
J. B. Hardie	Eight do	Assistant Kindergarten Teacher		320 00	
Theresa Darcy	Four do	do		160 00	
R. Brighton	Twelve do	Night Watchman		400 00	
					18,290 00
		EXPENSES.			
Warwick & Sons	Printing and binding		130 35		
Ottawa *Free Press*	Printing programmes, etc		21 50		
J. Notman	Stationery, etc		202 99		
Selby & Co	do		131 62		
J. Hope & Co	do		54 90		
				541 36	
Hart & Co	Magazines		33 40		
A. S. Woodburn	Directory		2 50		
Jas. Hope & Co	Text and reference books		662 87		
Copp, Clark Co	do		54 53		
E. L. Kellogg & Co	Books		3 50		
Copp, Clark Co	do		57 65		
Canada Publishing Co	Music readers		54 98		
				869 43	
J. Roberts	Chemicals, etc		32 09		
Elliot & Co	Skeleton		40 00		
				72 09	
E. M. Trowern	Medals		1 25		
Challoner & Mitchell	do		60 00		
R. Uglow	Tennis net		6 00		
				67 25	
F. N. Bell Smith	Readings, Normal School		10 00		
W. J. Summerby	Services *re* do examinations		100 00		
W. Mackintosh	do do do		94 74		
				204 74	
Selby & Co	Supplies, Kindergarten		16 10		
E. Brown	do		3 60		
E. L. Kellogg & Co	do		2 50		
J. L. Comté	Tree, Kindergarten		1 00		
Geo. Law	do		2 00		
Jessie Hardie	Travelling expenses, Kindergarten		30 00		
Ottawa *Citizen*	Advertising do		2 25		
Ottawa *Free Press*	do do		9 00		
				66 45	
Canadian Express Co	Charges		8 60		
Dominion Express Co	do		11 10		
Canada Atlantic Ry. Co	Freight charges		5 00		
C. P. Railway Co	do		61		
T. Elmitt	Cartage		2 00		
				27 31	
	Carried forward			1,848 63	481,807 26	697,952 61

EDUCATION—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	.....	1,848 63	481,807 26	697,952 61
	NORMAL AND MODEL SCHOOLS, OTTAWA—*Continued.*				
	EXPENSES—*Continued.*				
J. A. MacCabe	Travelling expenses	22 00			
T. H. McGuirl	Expenses *re* removal	75 00			
			97 00		
J. A. MacCabe	Grant to annual games	.....	25 00		
J. Ferguson	Rent of opera house *re* opening and closing exercises	.....	25 00		
J. A. MacCabe	To pay sundries	.....	11 77		
Sundry newspapers	Subscriptions and advertisements	.....	92 60		
				2,100 00	
	MUSEUM AND LIBRARY.				
	SALARIES.				
S. P. May	Twelve months' salary as Superintendent	.....	1,700 00		
Miss J. M. Crooks	do Librarian	.....	500 00		
W. Lemon	do Clerk and messenger	.....	600 00		
T. J. Greene	do Junior Clerk	.....	500 00		
				3,300 00	
	EXPENSES.				
Canada Subscription Co	Books	96 00			
Copp, Clark Co	do	267 19			
D. Appleton & Co	do	13 26			
Williamson & Co	do	4 50			
E. L. Kellogg & Co	do	2 13			
Best Bros	do	3 50			
Grip Printing and Publishing Co	do	75			
C. Scribner's Sons	do	13 00			
R. W. Douglas & Co	do	38 91			
Rose-Belford Publishing Co	do	1 57			
Canada Publishing Co	do	19			
P. F. Van Everen	do	6 80			
J. Campbell, M.D	do	1 00			
Rev. W. H. Poole	do	3 00			
Book-mart Publishing Co	do	1 50			

J. E. Bryant & Co.	do	22 50			
W. Briggs	do	4 45			
D. C. Heath	do	54			
Carswell & Co	Law books	41 25			
Hart & Co	Magazines	32 65			
P. S. King & Son	Educational reports	16 50			
J. E. Bryant & Co	Law Journal, etc	9 67			
			580 86		
Warwick & Sons	Printing and binding	259 44			
Brown Bros	Stationery	1 00			
Postmaster	Postage	87			
			261 31		
R. J. Smith	Bust	15 00			
Miss M. Peel	Busts	75 00			
Hamilton McCarthy	do	200 00			
			290 00		
J. Bruce	Photo of Parliamentary group	4 00			
W. H. Snetzeneck	Photographs	4 00			
E. Potts	Mats for engravings, etc	46 60			
Gwatkin & Son	Fountain belt	1 00			
			55 60		
H. W. Davies	Services, copying, etc	250 00			
G. H. Preston	do	100 00			
D. Boyle	do *re* minerals	2 00			
H. W. Davies	do do	50 00			
			402 00		
Canadian Express Co	Charges	10 10			
Sundry persons	To pay express charges, etc	3 00			
C. M. Richardson	Cartage	5 00			
London & N. W. Ry. Co	Freight charges	66			
Collector of Customs	Duty charges	93			
			19 99		
H. M. Wilkinson	To pay sundries		2 90		
Sundry newspapers	Subscriptions		35 10		
				1,647 76	
	SCHOOL OF PRACTICAL SCIENCE.				
	SALARIES.				
J. Galbraith	Twelve months' salary as Professor of Engineering		2,500 00		
W. H. Ellis	do do Applied Chemistry		1,500 00		
L. B. Stewart	do Lecturer in Surveying		1,000 00		
D. Burns	Five do Fellow in Engineering Department		312 00		
C. J. Marian	Three do do		188 00		
F. W. Babington	Nine do Fellow in Chemistry Department		375 00		
W. Ross	Three do do		125 00		
H. H. Langton	Twelve do Secretary		100 00		
				6,100 00	
	Carried forward			494,955 02	697,952 61

EDUCATION—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward			494,955 02	697,952 61
	SCHOOL OF PRACTICAL SCIENCE—*Continued.*				
	EXPENSES.				
Warwick & Sons	Printing and binding	166 77			
Brown Bros	Binding	41 75			
J. Notman	Stationery	61 25			
H. C. Dixon	Postage stamps	5 00			
			274 77		
Rowsell & Hutchison	Prize books	25 00			
Williamson & Co.	do	10 00			
R. Freidlander & Sohn	Periodicals	164 16			
E. G. Allen	do	10 94			
Leonard Scott Publishing Co.	do	4 00			
			214 10		
A. Jeffery	Chemicals	54 95			
Lyman Bros & Co.	do	248 96			
Eimer & Amend	Chemical apparatus	25 08			
J. Sinclair & Son	do appliances	18 95			
Rice Lewis & Son	do do	5 37			
Aikenhead & Crombie	Physical do	64 32			
			417 63		
Rowsell & Hutchison	Printograph	5 00			
Map and School Supply Co	Crayons	4 65			
W. J. Graham	do	4 80			
			14 45		
W. J. Graham	Services as Caretaker	750 00			
J. Hare	do Attendant	72 00			
G. A. Goodwin	do do	72 00			
			894 00		
Canadian Express Co	Charges	3 45			
Robinson & Heath	Express and duty charges	2 30			
W. J. Graham	To pay duty charges	1 25			
Rose Cartage Co.	Cartage	1 50			
			8 50		
Sundry newspapers	Subscriptions and advertisements		18 00		
				1,841 45	

Treasurer Mechanics' Institute—	MECHANICS' INSTITUTES.					
Ailsa Craig	Legislative Grant		180 00			
Alliston	do		98 50			
Almonte	do		210 50			
Alvinston	do		150 00			
Alton	do		175 00			
Arnprior	do		175 75			
Arkona	do		187 40			
Arthur	do		322 30			
Athens	do		193 80			
Aurora	do		163 00			
Aylmer	do		167 25			
Ayr	do		200 00			
Barrie	do		283 00			
Beamsville	do		238 00			
Beeton	do		134 50			
Belleville	do		330 00			
Belmont	do		197 80			
Belfontaine	do		101 00			
Berlin	do		200 00			
Blenheim	do		205 00			
Bradford	do		52 25			
Brighton	do		150 00			
Bowmanville	do		185 00			
Bobcaygeon	do		218 00			
Bolton	do		197 65			
Brantford	do		200 00			
Brampton	do		289 00			
Brockville	do		350 00			
Bracebridge	do		78 70			
Brussels	do		108 00			
Caledonia	do		280 00			
Campbellford	do		148 00			
Cannington	do		122 00			
Carleton Place	do		200 00			
Caledon	do		25 00			
Chatham	do		120 00			
Chatsworth	do		80 00			
Chapleau	do		246 50			
Cheltenham	do		175 00			
Clifford	do		157 00			
Clinton	do		237 70			
Colborne	do		107 60			
Collingwood	do		275 30			
Cobourg	do		98 00			
Credit Forks	do		73 00			
Deseronto	do		75 50			
		Carried forward	8,162 00		496,796 47	697,952 61

EDUCATION—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	8,162 00		496,796 47	697,652 61
	MECHANICS' INSTITUTES—*Continued.*				
Treasurer, Mechanics' Institute—					
Drayton	Legislative grant	78 25			
Dresden	do	75 00			
Dundas	do	223 00			
Dufferin	do	83 00			
Durham	do	200 00			
Duart	do	72 00			
Elmira	do	232 50			
Elora	do	250 00			
Embro	do	250 00			
Essex Centre	do	181 00			
Exeter	do	158 00			
Ennotville	do	150 00			
Fenelon Falls	do	150 00			
Fergus	do	268 00			
Galt	do	250 00			
Garden Island	do	250 00			
Goderich	do	280 00			
Georgetown	do	128 36			
Glencoe	do	291 00			
Gravenhurst	do	143 00			
Glennorris	do	157 00			
Guelph	do	200 00			
Grimsby	do	250 00			
Grand Valley	do	164 00			
Harriston	do	209 60			
Hespeler	do	172 00			
Highgate	do	95 50			
Holyrood	do	183 60			
Huntsville	do	86 60			
Ingersoll	do	42 00			
Jarvis	do	74 50			
Kingston	do	350 00			
Kincardine	do	250 00			
Lancaster	do	37 00			
Leamington	do	100 00			
Lewis Head	do	57 00			

Lindsay	do		250 00			
London	do		250 00			
L'Orignal	do		36 00			
Lucan	do		143 00			
Lucknow	do		60 50			
Markham	do		26 25			
Markdale	do		128 00			
Meaford	do		194 67			
Merrickville	do		150 00			
Melbourne	do		37 00			
Midland	do		243 00			
Milton	do		287 00			
Mitchell	do		186 50			
Mount Forest	do		327 00			
Mono Road	do		140 00			
Morrisburg	do		175 00			
Napanee	do		574 00			
Newmarket	do		70 00			
New Hamburg	do		120 00			
Newburgh	do		288 00			
Niagara Falls	do		248 65			
Norwood	do		162 00			
Norwich	do		200 00			
Niagara	do		96 56			
Oakville	do		175 00			
Orangeville	do		200 00			
Orono	do		25 00			
Orillia	do		209 00			
Owen Sound	do		441 00			
Oshawa	do		228 00			
Ottawa	do		296 00			
Oxford Mills	do		24 00			
Paris	do		340 00			
Paisley	do		172 00			
Parkhill	do		50 00			
Parry Sound	do		124 00			
Parkdale	do		250 00			
Penetanguishene	do		330 00			
Perth	do		329 00			
Peterboro'	do		302 00			
Port Carling	do		104 00			
Port Elgin	do		114 50			
Port Hope	do		212 50			
Point Edward	do		163 60			
Prescott	do		200 00			
Preston	do		324 00			
Renfrew	do		200 00			
Ridgetown	do		277 75			
Ripley	do		155 00			
		Carried forward	23,943 39		496,796 47	697,952 61

EDUCATION—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	23,943 39		496,796 47	697,952 61
Treasurer, Mechanics' Institute—	MECHANICS' INSTITUTES—*Continued.*				
Richmond Hill	Legislative grant	73 50			
Russell	do	75 00			
Scarboro'	do	175 00			
Seaforth	do	250 00			
Simcoe	do	200 00			
Shelburne	do	197 30			
Smith's Falls	do	249 00			
Southampton	do	175 00			
Stayner	do	81 00			
Stratford	do	200 00			
Streetsville	do	168 30			
Stouffville	do	250 00			
St. Catharines	do	200 00			
St. Mary's	do	314 00			
St. Thomas	do	159 00			
Tavistock	do	166 00			
Teeswater	do	155 00			
Thorold	do	226 30			
Tilsonburg	do	141 45			
Thamesville	do	304 00			
Thamesford	do	101 00			
Toronto	do	200 00			
Trenton	do	116 00			
Uxbridge	do	250 00			
Wallaceburg	do	50 00			
Welland	do	242 60			
Waterloo	do	200 00			
West Winchester	do	76 00			
Weston	do	224 00			
West Toronto Junction	do	147 55			
Williamstown	do	56 90			
Windermere	do	116 00			
Wiarton	do	102 50			
Wingham	do	250 00			
Whitby	do	170 00			
Vandorf	do	91 00			

Woodstock	do	167 00		
Wroxeter	do	129 00		
Woodbridge	do	136 00		
Wyoming	do	200 00		
			30,728 79	
Warwick & Sons	Printing and binding	89 33		
J. Notman	Stationery	4 50		
Warwick & Sons	do	2 50		
H. C. Dixon	Postage stamps	124 00		
H. W Davies	Services, *re* returns, etc	26 00		
D. C. Sullivan	do copying report	52 00		
S. P. May	Travelling expenses	377 20		
J. A. McCabe	do	23 00		
H. M. Wilkinson	To pay sundries	1 25		
			699 78	
				31,428 57
	ART SCHOOLS—EXAMINATIONS, ETC.			
Ontario Society of Artists	Legislative grant	500 00		
School of Art, Brockville	do	438 00		
do Hamilton	do	548 00		
do Kingston	do	483 00		
do London	do	400 00		
do Ottawa	do	400 00		
do Parkdale	do	400 00		
do Toronto	do	704 00		
			3,873 00	
W. Scott	Services and expenses *re* examinations	6 70		
Jas. Johnston	do	19 50		
E. B. Shuttleworth	do	64 50		
C. Fuller	do	55 00		
A. J. Reading	do	39 00		
Prof. Galbraith	do	10 00		
Thos. Rutter	do	16 00		
H. E. May	do	30 00		
L. C. Peake	do	20 00		
J. H. McFaul	do	2 50		
L. C. Peake	Bonuses to students passing Matriculation examination	32 00		
			295 20	
Warwick & Sons	Printing *re* Art School examinations	53 06		
J. Notman	Stationery do	44 29		
H. C. Dixon	Postage stamps do	6 00		
Copp, Clark Co	Lithographing papers do	12 50		
Challoner & Mitchell	Medals do	102 00		
Rolph, Smith & Co	Engraving medals do	13 00		
			230 85	
J. H. Griffith	Repairing picture frames *re* Art exhibition	8 00		
E. Potts	do do	1 90		
Firstbrook Bros	Boxes for pictures do	7 00		
	Carried forward	16 90	4,399 05	528,225 04	697,952 61

EDUCATION—*Concluded.*—PUBLIC INSTITUTIONS MAINTENANCE.

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	16 90	4,399 05	528,225 04	697,952 61
	ART SCHOOLS—EXAMINATIONS, ETC.—*Continued.*				
J. Macdonald & Co	Lining for pictures re Art Exhibition	3 20			
S. P. May	To pay sundries do	97 62			
Warwick & Sons	Printing do	69 51			
Sundry newspapers	Advertising do	38 20			
			225 43		
J. H. Griffith	Examinations, London Art School	36 00			
F. A. Dixon	do Ottawa do	55 00			
R. W. Hicks	do Parkdale do	19 00			
			110 00		
Express Co	Charges	5 80			
Sundry persons	To pay express charges	5 75			
C. P. Railway	Freight charges	4 16			
G. T. Railway	do	29 70			
Verral Cab Co	Cab hire	2 50			
			47 91		
Sundry persons	Travelling expenses, Art School delegates		131 15		
H. M. Wilkinson	To pay sundries		2 35		
				4,915 89	
	LITERARY AND SCIENTIFIC.				
Canadian Institute, Toronto	Legislative Grant		1,000 00		
Institut Canadien, Ottawa	do		300 00		
Literary Institute, Hamilton	do		400 00		
Literary & Scientific Institute, Ottawa	do		300 00		
Canadian Shorthand Society	Special grant, bust of Isaac Pitman		100 00	2,100 00	
	MISCELLANEOUS.				
Warwick & Sons	Printing and binding school registers	916 73			
do	do readers	33 15			
			949 88		
do	do Education report	82 25			
J. Notman	Paper, Education report	371 99			

Copp, Clark Co	Diagrams, laboratory, Education report	28 00			
Warwick & Sons	Printing and binding, Technical Education	22 00			
J. Notman	Paper do	23 79			
			528 03		
Warwick & Sons	Printing and binding	762 31			
Dominion Illustrated Publishing Co	Engraving	33 60			
			795 91		
Warwick & Sons	Printing and binding, Canadian Institute	61 60			
do	do University	11 34			
do	do French and German Schools	54 39			
Sundry newspapers	Advertising Instructions to French and German Schools	200 00			
E. B. Biggar	Books	31 24			
			358 57		
				2,632 39	
	SUPERANNUATED, PUBLIC AND HIGH SCHOOL TEACHERS.				
Hon. A. M. Ross	To pay superannuated teachers		60,360 38		
Warwick & Sons	Printing and binding		4 62		
				60,365 00	
	Total Education				598,238 32

PUBLIC INSTITUTIONS MAINTENANCE.

ASYLUM FOR THE INSANE, TORONTO

Salaries.

Daniel Clark, M.D	Twelve months' salary as		Medical Superintendent	2,000 00		
H. E. Buchan, M.D	do		Assistant do	1,100 00		
F. W. Cane, M.D	do		do Physician	800 00		
T. J. Tracy	do		Bursar (including allowance for rent)	1,700 00		
W. Tracy	do		Clerk	800 00		
Charles Gibbs	Eleven	do	Storekeeper	733 15		
A. Mackenzie	One	do	do	66 66		
James Ryan	Twelve	do	Assistant storekeeper	700 00		
Robert Blair		do	Steward	750 00		
John Kelly		do	Tailor	625 00		
R. Palmer		do	Baker	308 00		
S. Cunningham		do	do	308 00		
Thos. Hughes		do	Carpenter	600 00		
Jas. Anthony		do	do	550 00		
Robt. Bruce		do	Painter	575 00		
Jas. Marvyn	Eleven	do	Bricklayer and mason	572 55		
Jno. Daly	One	do	do	52 08		
			Carried forward	12,240 44		1,296,190 93

PUBLIC INSTITUTIONS MAINTENANCE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	12,240 44			1,296,190 93
	ASYLUM FOR THE INSANE, TORONTO—*Continued.*				
	SALARIES—*Continued.*				
Peter Trowern	Twelve months' salary as Engineer	815 00			
W. Boulton	do Farmer	475 00			
Geo. Beasant	do Gardener	472 00			
M. A. Bastedo	do Matron	450 00			
Sundry persons	Wages of attendants, maids and other servants	16,626 13			
			31,078 57		
	EXPENSES.				
Armstrong, Dr	Fees examining patient	4 00			
Allen, Solomon	Vinegar	56 44			
Amies, T. E	Hay	35 74			
Brown Bros	Stationery	42 50			
Bertram, J. A	Hardware, etc	422 69			
Blackhall, W. B	Rebinding books	72 45			
Boulton, Wm	Railway tickets to Mimico	15 60			
Burt, Wm	Honey	95 00			
Briggs, Wm	Books	4 00			
Botham, T. H	Medicines	25 10			
Bales, J. C	Hay	89 46			
Cassidy, W. J	Printing	3 00			
Consumers' Gas Co	Gas	2,396 94			
City of Toronto	Water	5,274 49			
Coleman, C. W	Repairing clocks	7 00			
Claxton, T	Hymn books	75			
C. P. Railway Co	Freight charges	1 70			
Coleman, J. F	Coal	2 21			
Cosgrave & Co	Hops and malt	49 50			
Carroll, Robt	Sewer pipe, cement, etc	15 93			
Canadian Express Co	Express charges	4 45			
Clark Manufacturing Co	Locks	30 20			
Covey, Jos. & Co	Wall paper, etc	87 77			
Cleveland Electrical Mfg. Co.	Dials	8 00			
Copp, Clark Co	Stationery	12 00			

Clark, Daniel, Dr	Travelling expenses to Newport, etc	157 75			
Chandler, J. R	Pictures	17 00			
Davis, R. C. & Co	Lamp shades	1 60			
Doyle, M	Fish	1,058 00			
Davis, John & Son	Flower pots	23 05			
Denby, H	Hay	66 40			
Dunn, J. R	do	16 57			
Deaf and Dumb Institute	Shoes	292 50			
Dominion Barb Wire Co	Wire	17 73			
Dineen, W. & D	Hats	10 00			
Daly, John	Bricklaying	117 15			
Dobson, W. E	Straw	3 00			
Eby, Blain & Co	Groceries	5,804 07			
Edgar, John & Son	Crockery	337 55			
Evans, George	Hardware	8 20			
Eckardt, Kyle & Co	Groceries	931 56			
Evans, J. E	Washing compound	4 75			
Ellis & Keighley	Coffee, etc	427 00			
Gutta Percha & Rubber Co	Drill sheets	99 75			
Gall, Geo	Lumber	152 01			
Gall, Anderson & Co	do	1,090 77			
Grand & Co	Horse	170 00			
Grenadier Ice Co	Ice	8 80			
G. T. Railway	Freight charges	1 53			
Hickey, John	Tolls	34 63			
Hudgin, Albert	Postage stamps	159 00			
Hatley, J. J	Ice	180 00			
Harcourt, George & Sons	Religious instruction	14 00			
Hornby, J	Hay	20 48			
Hagerman, Chris	do	15 52			
Horne, D. F	Hay and straw	53 66			
Hyde, F. H	Castings, etc	29 10			
Harper, H. W	Hay	42 70			
Henry, James	do	18 27			
Hunter, R	Purchase of meat	12,789 56			
Inglis & Hunter	Castings and repairs	31 00			
Inglis, John & Sons	Castings	170 60			
Jolliffe & Co	Furniture	163 13			
Johnston, H	Hay	24 00			
Kent Bros	Replating, etc	5 00			
Knowlton, W. H	Flour, oatmeal, etc	8,144 35			
Keith & Fitzsimons	Plumbing	649 63			
Loft, F. O	Services as extra clerk	530 00			
Lawson, Edward	Confectionery	71 90			
Ley, George	Straw	17 91			
Loomis, L. W	Tinware	9 00			
Langdale, Esther	Wages as attendant	5 35			
Legge, Fred	Hay	18 92			
Morrison, Angus & Co	Braces	120 00			
	Brought forward	42,892 37	31,078 57	..	1,296,190 93

PUBLIC INSTITUTIONS MAINTENANCE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	42,892 37	31,078 57		1,296,190 93
	ASYLUM FOR THE INSANE, TORONTO—*Continued.*				
	EXPENSES—*Continued.*				
Miller, Hugh & Co	Medicines, etc	835 01			
Montgomery, A	Blacksmithing	105 01			
Morse Soap Co	Soap	690 25			
Miller, W.	Hay and straw	84 17			
Mercer Reformatory	Clothing	33 00			
Maloney, John	Sand	33 25			
Mason & Risch	Tuning pianos, etc	21 25			
Mulholland, T. W.	Hay	141 95			
McMaster, Darling & Co	Clothing, etc	2,395 09			
McMillan, John	Fruit and vegetables	769 59			
McKenna, J. P.	Postage stamps	13 00			
McCausland, J. & Son	Glass	33 25			
McCrae & Co	Clothing	488 40			
McKenzie, J. H. & Co	Hay	9 55			
McLean, D	Leather	7 47			
Macdonald, J. & Co	Furnishings	53 28			
McMaster & Co	Table linen, etc	500 90			
Mackenzie, Angus	Services as storekeeper	13 33			
Nolan, M	Interments	21 00			
Nelson, H. A. & Sons	Brushes, brooms, etc	73 85			
Noble, Fred	Hay	22 60			
Notman, John	Stationery	98 80			
Ogilvy, Alexander & Anderson	Clothing	466 64			
O'Connor, M	Hay	82 94			
Polk, R. L. & Co	Directories	8 00			
Parker & Evans	Boiler compound	30 60			
Ryan, Wm	Flour, butter, etc	8,477 93			
Rogers, Chas. & Sons Co	Furniture	25 60			
Rennie, Wm	Seeds and plants	136 05			
Rathbone, G	Sawdust	10 98			
Roberts, E. H	Locks, etc	16 50			
Robinson & Heath	Duty on locks, gutta percha, etc	41 61			
Rabjohn, R	Locks	24 00			

Rogers, Elias & Co	Coal		8,095 73			
Russell, John	Brick		32 00			
Schlicht & Field Co	Paper, etc		15 10			
Shelton, Wm	Music		104 00			
Smith, Andrew	Harness and repairs		63 28			
Smith, Andrew, V.S	Attendance and medicines		2 50			
Smith, C. J. Co	Fuel		1,006 38			
Smith, James	Straw		66 43			
St. Michael's Cathedral	Cab hire *re* religious services		150 00			
Smith, D. W	Repairing furniture		10 00			
Se an Bros	Groceries		1,080 54			
Stark, Charles Co	Police whistles		4 50			
Sundry newspapers	Subscriptions, etc		98 50			
do	Advertising *re* supplies and fuel		109 13			
Toronto Street Ry. Co	Car tickets		126 48			
Tocque, Rev. P	Donation		10 00			
Travers, H	Fruit, etc		7 80			
Toronto Lime Co	Lime		54 10			
Trotter, John	Expenses recapturing eloper		11 00			
Toronto Humane Society	Books		2 00			
Toronto Gas Stove & Supply Co	Burners		8 25			
Turner & Porter	Interments		53 00			
Tracy, Thos. J	Sundry payments		11 21			
Williamson & Co	Stationery		3 50			
Wheeler & Bain	Iron, tinware, etc.		696 07			
Welsh, A. H	Sleigh bells and repairs		2 00			
Warriner, R. C	Hams		6 02			
Warwick & Sons	Printing and binding		205 65			
Williamson, White & Co	Clothing		226 10			
Williams Manufacturing Co	Machine needles, etc		5 20			
Walker, Adam	Services as attendant		10 00			
Watson, Alex	Hay		17 98			
Yorke, Lionel	Gravel		18 75			
				70,970 42		
					102,048 99	
	ASYLUM FOR THE INSANE, LONDON.					
	SALARIES.					
R. M. Bucke, M.D	Twelve months' salary as	Medical Superintendent	2,000 00			
N. H. Beemer, M.D	do	Assistant do	1,100 00			
J. Robinson, M.D	Four do	do Physician	333 32			
R. M. Fairchild, M.D	Eight do	do do	666 68			
J. M. Foster, M.D	Twelve do	Second Assistant Physician	700 00			
C. A. Sippi	do	Bursar	1,400 00			
Wm. Wanless	do	Clerk	800 00			
D. Mackenzie	do	Storekeeper	800 00			
D. Rodger	do	Assistant storekeeper	600 00			
		Carried forward	8,400 00		102,048 99	1,296,190 93

PUBLIC INSTITUTIONS MAINTENANCE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward..	8,400 00		102,048 99	1,296,190 93
	ASYLUM FOR THE INSANE, LONDON—*Continued.*				
	SALARIES—*Continued.*				
Stephen Cope	Twelve months' salary as Engineer	740 00			
Geo. Ross	do Assistant engineer	400 00			
J. A. Stewart	do Carpenter	550 00			
J. McIntosh	do Assistant carpenter	500 00			
Thos. Westcott	do Plasterer and bricklayer	600 00			
Geo. England	do Baker	400 00			
S. Spicknell	do Tailor	460 00			
Wm. Armstrong	Seven do Painter	140 00			
Jno. Waight	Five do do	100 00			
Geo. W. Rennie	Twelve do Gardener	450 00			
M. A. Pope	do Matron	500 00			
E. McBride	do Assistant matron	300 00			
Emma F. Dawson	do Chief attendant	250 00			
Thos. Flynn	do do	300 00			
Geo. Angus	do do	336 00			
Jas. O'Neill	do do	300 00			
P. F. Canniff	do Farmer	600 00			
Sundry persons	Wages of attendants, farm hands, maids and other servants	19,125 47			
			34,451 47		
	EXPENSES.				
Anderson, J. J. & Co	Stationery	58 61			
Advertiser Printing and Publishing Co	Printing and advertising	87 60			
Anderson, J. J. & Co	Postage stamps	213 26			
Asylum laundry	Tallow	173 18			
American Express Co	Charges	18 85			
Ashman, Mark	Straw, sawdust, etc	145 08			
Anderson, James	Gravel	40 00			
Angus, George	Recapturing eloper	1 20			
Anderson, James	Straw	48 16			
Allen, Solomon	Vinegar	61 00			
Boosey & Co	Music	7 08			

Briody, John	Straw	34 76			
Brock, Thos	Fish	895 62			
Bucke, R. M. Dr.	Travelling expenses	5 60			
Bell Telephone Co.	Rent of instrument and messages	97 78			
Bowers, Edwin	Poultry	128 68			
Barrows, Alfred	Recapturing eloper	5 00			
Burns, James	Blacksmithing	104 62			
Bourne, S.	Straw	70 28			
Bayley, Wm	do	110 98			
Butcher, Ben	Hay	6 82			
Bruce, J. A	Seeds	99 56			
Bryan, Thomas	Brushes	119 80			
Craig, W. J	Lumber	1,246 60			
City Gas Co.	Gas	2,673 35			
Cousins, J. M. & Son	Repairing pumps, etc.	16 50			
Cairncross & Lawrence	Paints, oils, etc.	458 04			
Cairncross, G. & J. B	Fish, fruit, etc.	215 81			
Canadian Express Co.	Charges	4 60			
Crosbie, Peter	Evergreens	2 00			
Crosby, Alex.	Straw	74 95			
Cowan, Jas. & Co.	Hardware	374 08			
Chappell & Co	Music	7 25			
Chief Fire Department.	Expenses *re* fire	5 00			
Claxton, Thomas	Band Instruments	222 67			
C. P. R. Telegraph	Telegrams	54			
Collector of Customs	Duties	107 80			
Cole, A.	Furniture	18 50			
Cawthorp, Jos.	Saw dust	4 00			
Colwell, C. F.	Furnishing music	55 90			
C. P. Railway	Freight charges	1 83			
Cameron, A. D. & Son	Coal, cement, etc.	14,364 87			
Crossin, Thos	Apples	7 00			
Cleveland Electrical Manufacturing Co.	Dials	7 00			
Cook, Wm	Hay and straw	108 93			
Canada Chemical Manufacturing Co.	Chemicals	7 40			
Crawford, J. E.	Repairs	14 40			
Canada Moss Co.	Bedding	45 96			
Dyson, Wm.	Iron and tinware	40 10			
Denins, R	Hardware	28 00			
Day, John	Expenses recapturing eloper	2 00			
Darch, J. & Sons	Harness, etc.	110 80			
Day, John	Straw	51 90			
Doran, M. J	Fertilizer	13 80			
Davis, H. & Son	Repairing clocks	1 50			
Donohue, Wm	Cab hire *re* religious services	26 00			
Dominion Express Co.	Charges	40			
England, Geo.	Allowance for rent	60 00			
	Carried forward	22,916 00	34,451 47	102,048 99	1,296,190 93

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	22,916 00	34,451 47	103,048 99	1,296,190 93
	ASYLUM FOR THE INSANE LONDON—*Continued.*				
	EXPENSES—*Continued.*				
Elliott Bros	Groceries	3,069 09			
England, Wm.	Travelling expenses	15 85			
Fysh, Hewitt & Co	Confectionery	24 00			
Ferguson Bros	Lumber	619 55			
Ferguson, John & Sons	Furniture	239 00			
Flynn, Thos	Ice	35 00			
Fitzgerald, F	Straw	72 87			
Free Press Printing Co	Advertising	4 00			
Fairchild, Dr	Travelling expenses	5 05			
Farm Exchange	Pork	832 10			
Flannagan, Arthur	Lambs	8 25			
Fessenden Bros	Repairs	5 00			
Flynn, T. F	Tickets to circus	19 50			
G. N. W. Telegraph Co	Telegrams	22 20			
G. T. Railway	Freight charges	75 29			
Green, J. & Co	Clothing, etc	1,840 18			
Gillson, John	Cab hire *re* religious services	93 50			
Gurd, J. R.	Brushes and brooms	343 75			
Green, T. & Co	Lumber, etc	80 50			
Gown, Robt	Apples	65 00			
Gunnage, J. & Son	Seeds	2 50			
Guest, Thomas	Straw	92 57			
Greenback Alkali Co	Laundry soap	532 90			
Grant, John	Hay	32 60			
Gutcliff, J	Lambs	13 50			
Gales, John	Recapturing eloper	2 00			
Glass Bros. & Co	Crockery	74 00			
Higgins, B	Butter	6,983 04			
Harkness & Co	Medicines, etc	300 26			
Husband, Jas & Son	Honey	120 00			
Heard, W. H. & Co	Plumbing	198 00			
Hueston, R	Cab hire	102 50			
Hinton Mills Mf'g. Co	Interments	231 00			
Hamilton, A. M. & Son	Oats, etc	916 39			

Highway, R. B.	Recapturing eloper	7 45			
Hanna, Geo	Blacksmithing	415 66			
Hennessy, Jno	Oats	173 23			
Hawkins, Geo	Straw	6 47			
Hill, John	Hay	119 24			
Hill, Wm	do	47 68			
Heaman, Wm	Cement, etc	284 70			
Hunt, E. N	Wall paper	57 74			
Harcourt, Geo. & Son	Surplice	14 00			
Hyman, C. S. & Co	Boots and shoes	240 05			
Hughes Bros. Estate	Clothing	161 89			
Hammond, John	Removal of patients	2 00			
Harris, Son & Co	Castings	5 00			
Hunter, R.	Purchase of meat	11,911 12			
Job, Henry H. & Co	Leather, etc	99 31			
Johnston, James	Brick	60 00			
Jones, J. W	Stove	12 00			
Kingston Asylum	Brushes and brooms	114 00			
London Post Office	Rent of box	6 00			
Laing, J. B	Auditing accounts	107 80			
Lewis, Robt.	Paints and oils	1,297 53			
London Carpet Renovating Co.	Cleaning carpets	4 70			
Leonard Bros	Lamp	2 50			
Leslie, B	Straw	5 63			
Lacey, R. F. & Co	Boots and shoes	297 65			
Lapthorn, John	Hay	56 40			
Leonard, E. & Sons	Castings and repairs	127 35			
Murray, R. & S	Clothing	316 92			
Maybank, John	Cab hire *re* religious services	20 00			
Martin, J. W	Rent of room	12 00			
Masuret, M. & Co	Groceries	3,319 77			
Marshall Bros	Tea	558 48			
Mills, James	Recapturing eloper	16 06			
Morrison, A. & Co	Clothing	122 04			
Marshall, J. & Co	Hats and caps	157 50			
Marshall, Geo. & Co.	Tea	303 22			
Morrison, J. W	Blacksmithing	57 38			
Morris, Stone & Wellington	Fruit and forest trees	32 00			
Murray, A. S. & Co	Spectacles, etc	30 90			
Marsh, Wm	Meat	6 24			
Mann, Jno. & Sons	Coal	199 85			
May, S. & Co	Amusements	26 10			
McKenzie, D	Allowance for rent	200 00			
McKenna, Jno	do	240 00			
McDowell, Geo	Cheese	664 51			
McKenzie, Alex	Hay	99 16			
McCartney, Geo.	do	66 95			
McDougall, D	do	62 26			
Mactie, R. C. & Co	Hats and caps	67 69			
	Carried forward	62,206 07	34,451 47	102,048 99	1,296,190 93

PUBLIC INSTITUTIONS MAINTENANCE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	62,206 07	34,451 47	102,048 99	1,296,190 93
	ASYLUM FOR THE INSANE, LONDON—*Continued.*				
	EXPENSES—*Continued.*				
McGrady, J.	Straw	17 04			
McMullen, T.	Music	30 00			
McLary Mnf'g Co	Castings and repairs	99 13			
Notman, J	Stationery	17 50			
O'Higgins, J. P.	Groceries	2,163 09			
O'Neill, Wm	Recapturing eloper	6 40			
O'Rourke, Jas.	do	3 00			
O'Donohue, J	Cab hire *re* religious services	26 00			
Ogilvy, Alexander & Anderson	Clothing	1,762 98			
O'Dell, W.	Travelling expenses	1 00			
O'Reilly, W. T. Dr.	do	20 00			
Ontario Coal Co	Coal	627 70			
O'Meara, P.	Cab hire *re* religious services	30 00			
Polk, R. L. & Co	Directories	6 00			
Pavey, A. E. & Co	Clothing	1,151 98			
Perrin, D. S. & Co	Biscuits	79 45			
Piper, Thomas	Hay and straw	101 71			
Pearce, J. S. & Co	Seeds	9 41			
Patterson & Jolly	Plow points	2 66			
Redman, Jno	Recapturing eloper	4 00			
Robinson, J.	Screen for radiators	11 60			
Robinson, Little & Co	Bedding, clothing, etc	6,277 68			
Ryan, Wm	Butter	214 66			
Reid, Jas. & Co	Hardware	1,232 33			
Ryan, Matt	Straw	33 32			
Rogers, Chas. & Son	Furniture	839 28			
Rice & Chapple	Bats, balls, etc	78 72			
[illegible] & Co	Stationery	212 80			
Scarrow, Wm	Harness	10 05			
Stevens, Glass & Clark	Boots and shoes	795 48			
Sage, F.	Livery	26 00			
Stewart, J. A	Travelling expenses	10 50			
Shuff, J. G.	Medicines	203 87			

Saunby, J. D	Flour, cornmeal, etc	8,965 48			
Smyth, H. C	Poultry, eggs, etc	560 88			
Scatcherd, Edwin	Poultry	60 60			
Staunton, M. & Co	Paper hangings	11 00			
Shoebotham, Jas	Recapturing eloper	5 00			
Sanborn, G. W	Tea	130 14			
Strong, W. T	Medicines, oils, etc	384 90			
Stewart, Sam	Iron and tinware	96 95			
Smith, W. R	Straw	77 88			
Stevely, Wm	Iron and tinware	282 59			
Struthers, Anderson & Co	Bedding, clothing, etc	672 25			
Stephenson, Jno	Cleaning chimneys	16 40			
Sippi, C. A	Sundry payments	10 86			
Spalding, A	Travelling expenses	5 70			
Sippi, C. A	do	27 30			
Sundry Newspapers	Subscriptions and advertisements	43 25			
do	Advertising *re* supplies	170 00			
Tanton, Jno	Oatmeal, barley, etc	414 00			
Toronto Gas Stove & Supply Co	Gas stove	1 50			
Troy Laundry Machine Co	Laundry fittings	15 00			
Tytler, Alex	Groceries	320 39			
Taylor, Sam	Hay and straw	41 99			
Thompson, M	Recapturing eloper	3 05			
Toronto Humane Society	Books	2 00			
Tennant, J. H. & S	Attendance and medicines	21 50			
Urquhart, Donald	Straw	4 84			
Underwood & Underwood	Collection of views	17 00			
Vanhorn, W	Fish	42 00			
Wanless, W	Allowance for rent	200 00			
Watts, H	Straw	10 50			
Wistow, Tom	Flower pots	12 50			
Wilson, Hugh	Hay	92 29			
Westman, A	Hardware	171 65			
Wakeling, Chas	Straw	13 61			
Wade, Daniel	do	43 59			
Wilson, J. H. & Son, V. S	Medicines	14 50			
Winslow, M. D	Recapturing eloper	20 05			
Warwick & Sons	Printing and binding	68 23			
Veo, N. F	Crockery	1,133 99			
			92,489 57		
				126,941 04	
	ASYLUM FOR THE INSANE, KINGSTON.				
	SALARIES.				
C. H. Clark, M.D	Twelve months' salary as Medical Superintendent	2,000 00			
Thos. Millman, M.D	Five do Assistant do	458 30			
John Robinson, M.D	Seven do do do	641 70			
John Simpson, M.D	Twelve do do do Physician	718 75			
Wm. Anglin	do do Bursar	1,300 00			
	Carried forward	5,118 75		228,990 03	1,296,190 93

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	5,118 75		228,990 03	1,296,190 93
	ASYLUM FOR THE INSANE, KINGSTON—*Continued.*				
	SALARIES—*Continued.*				
Wm. Cochrane	Twelve months' salary as Clerk	700 00			
Allen McLean	do do Steward	600 00			
John McManus	do do Storekeeper	700 00			
E. M. Kirkpatrick	do do Matron	150 00			
Isabel M. Walker	Ten do Assistant Matron	208 40			
E. B. Martin	Two do do do	41 68			
Marian Wilson	Two do Trained Nurse	35 00			
Hannah Hollingsworth	Eight do do	141 75			
Alex. R. Milne	Twelve do Engineer	740 00			
Johnson Graham	do do Assistant Engineer	300 00			
Jas. Dennison	do do Carpenter	500 01			
Henry Scott	Five do Baker	166 65			
T. W. McCammon	Seven do do	233 35			
Wm. Carr	Twelve do Gardener	400 00			
John Redmond	do do do	400 00			
Geo. Watson	do do Tailor	500 00			
Thos. Evans	do do Attendant	400 00			
Sundry persons	Wages of attendants, farm hands and other servants	13,072 12			
			24,707 71		
	EXPENSES.				
Anglin, Wm	Sundry payments	27 02			
do	Allowance for rent	150 00			
American Express Co	Charges	45			
Amey, S	Potatoes	62 94			
Asylum soap account	Tallow	329 50			
Byrne, J. J	Music	130 00			
Baker, W. F	Potatoes	75 00			
Bateson, Jas	Recapturing eloper	13 50			
Brame, H	Bedding, etc	451 15			
Blacklock, W. J	Potatoes, etc	41 20			
Bell Telephone Co	Rent of instrument and messages	133 73			
Baillie, W	Hay	8 30			

British Whig	Advertising and printing	121 40			
Baker, W. F	Eggs	14 21			
Bowman, Thos. W	Trees	9 08			
Bateson, Jas	Baseball bats	5 45			
Budge, Amos M	Hose, etc	8 50			
Barrett, J	Stationery	5 00			
Canadian Express Co	Charges	7 40			
Connor, Webb & Co	Basket and grate	10 25			
Caines, John	Meat	18 32			
Crawford, James	Flour, etc	6,523 75			
Cluff, W. J	Hay	552 18			
Carson, Robert	Provisions, oatmeal, etc	391 50			
Caldwell, A. & Son	Lumber	688 06			
Chown, A. & Co	Hardware, oils, etc	475 40			
Covell, D. J	Potatoes	172 03			
Carson Bros	Feed and fodder	346 35			
Custom House	Duty charges	49 50			
Crawford, R	Coal	11,368 08			
Clarke, Dr	Travelling expenses	119 95			
C.P.R. Telegraph Co	Messages	55			
Chandler, D. J. L.	Photos, etc	17 00			
Carey, Wm. & Son	Music	14 13			
Clancy, J. R	Hardware	4 80			
Campbell, E	Sand	25 00			
Crawford, Jas	Groceries	90 18			
Cataraqui Cemetery Co	Interments	44 00			
Carman, T. S	Advertising	5 65			
Duke, John	Meat	20 70			
Dominion Express Co	Charges	2 15			
Davidson, Doran & Co	Castings, etc	81 69			
Draper, Thomas	Hay	33 44			
Eilbeck, R. J	Hay, oats, etc	796 43			
Ewing, Wm. & Co	Seeds	14 50			
Excelsior Waterproof Co	Waterproof sheets	22 80			
Forsyth, Andrew	Meat	26 10			
Franklin, C. D	Feed and fodder	945 35			
Follett, Wm	Sweeping chimneys	4 50			
Franklin, Joseph	Seed oats and peas	50 51			
Ford Bros	Seeds	58 95			
Forsyth, Thos	Hay	10 84			
Gardiner, R. & J	Clothing, bedding, etc	2,442 05			
Grand Trunk Railway Co	Charges	31 46			
Galloway, James	Hats and caps	183 20			
Greenwood Bros	Hay and straw	216 51			
G. N. W. Telegraph Co	Telegrams	17 17			
Gardiner, F. V	Meat	31 34			
Green, W. H. & Co	Directory	2 00			
Greenbank Alkali Co	Potash	249 50			
Glassford, Jas	Turnips	13 50			
	Carried forward	27,765 20	24,707 71	228,990 03	1,296,190 93

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	27,765 20	24,707 71	228,990 03	1,296 190 93
	ASYLUM FOR THE INSANE, KINGSTON—*Continued.*				
	EXPENSES—*Continued.*				
Gordon, J. H	Hay	7 56			
Hentig, Mrs. C	Postage stamps	138 00			
Hartrick, John	Poultry	8 00			
Hughes Bros. Estate	Clothing	370 17			
Henderson J. & Co	Stationery	133 50			
Horton, W. C	Fish	85 07			
Hiscock, J	Fish, etc	109 50			
Hughes, Henry	Agricultural implements	62 40			
Hudgin, James	Fish	10 50			
Hardy, J. C. & Co	Bedding and clothing	682 43			
Hunter, R	Purchase of meat	10,287 08			
Johnston, A. C	Clocks and repairs	54 00			
Kingston Waterworks	Water	536 17			
Kingston Postoffice	Rent of box	4 00			
Kingston Asylum	Brushes	279 74			
Kingston Gas Co	Gas	492 63			
Kingston Foundry Co	Castings	12 20			
Lippincott, J. B. Co	Cutter charts	12 20			
Lyons, N	Spectacles	41 00			
Lyons, P	Hay	38 77			
Lawrence, Edward	Potatoes	6 00			
Lawrence, Thomas	do	7 80			
Lawson, H. M	do	18 75			
Lawless, P. J	Repairing waggonette	1 00			
Le Heup, J. A	Care of clocks	5 00			
Lowery James	Fish	98 86			
Livingston, C. & Bro	Clothing	364 42			
Lawless, Ed	Interments	24 00			
Millman, T	Duty, etc., on charts	3 40			
Mabee & Son	Lime	88 00			
Murray & Taylor	Clothing	271 97			
Massie, J., V.S	Medicine and attendance	15 00			
Mabee, B	Eggs	6 25			
Mahood, W. & J	Amusements	5 05			

Milton, D	Hay	26 92			
Marsh, Geo	do	87 68			
Martin, W. D	Flower pots	16 10			
Martin, Mrs. E. B	Embroidery	3 00			
Martin, Mrs. E. B	Travelling expenses	6 36			
McAdoo, A. W	Meat	21 25			
McAdoo, Wm	do	41 97			
McKelvey & Birch	Plumbing, etc	1,173 24			
McRae, W. R. & Co	Groceries, etc	3,699 89			
McEwen, D. & Son	Repairing engine, etc	300 65			
Macdonald, J. A	Adjusting scales	8 00			
McKay, John & Co	Shoes	498 62			
McAuley, Thos	Stationery	128 93			
McGregor, R	Recapturing eloper	2 50			
McGeein, R	Poultry	6 30			
McLean, A	Tickets to circus for patients	30 00			
McLean, A	Searching for eloper	8 50			
McMaster, Darling & Co	Bedding	156 00			
McFadden, W	Hay	19 78			
McMichael, Mr	do	8 22			
Nisbet, F	Stationery, etc	92 24			
Noxon & Rothwell	Shoes	3 25			
Notman, J	Stationery	8 75			
Ockley, Vincent & Son	Crockery	46 75			
Parker & Evans	Boiler compound	282 15			
Polson, N. C. & Co	Medicines, etc	87 54			
Payne, John	Repairing oven	2 00			
Redden, James	Groceries and provisions	5,348 21			
Redden, James	Butter	3,341 71			
Roberts, J. & E. H	Mortice locks, etc	12 00			
Robertson Bros	Crockery	398 50			
Ross, R. W	Rug patterns	10 00			
Rees Bros	Yeast, etc	161 66			
Registry Office Leeds	Searches	1 40			
Robinson, Dr	Freight on furniture and cartage	45 00			
Robinson, Dr	Travelling expenses	29 85			
Richmond, Orr & Co	Curtains, etc	110 98			
Robinson Bros	Wallpaper, etc	27 00			
Robinson, G. W	Repairing vehicles	176 60			
Rankin, D. J	Peas, buckwheat, etc	22 50			
Reyner, J	Tuning pianos	6 00			
Rathbun & Co	Lumber	11 00			
Strachan, A	Hardware, etc	380 76			
Shaw, F	Clothing	577 13			
Skinner, H. & Co	Paints and oils	461 21			
Shannon, Mrs	Poultry	24 50			
Shirlock, J. M., Jr	Music	5 00			
Stirling, J	Poultry	3 25			
Spence & Crumley	Millinery	40 00			
	Carried forward	60,009 47	24,707 71	228,990 03	1,296,190 93

PUBLIC INSTITUTIONS MAINTENANCE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	60,009 47	24,707 71	228,990 03	1,296,190 93
	ASYLUM FOR THE INSANE, KINGSTON—*Continued.*				
	EXPENSES—*Continued.*				
Sarpell, Jacob	Hay	6 12			
Sexton, Geo	Fish	9 24			
Spooner, R	Hay	26 06			
Sundry newspapers	Subscriptions and advertisements	49 90			
do	Advertising *re* supplies	60 00			
do	do *re* fuel	110 00			
Tarrant, T	Cooking apparatus	3 00			
Toye, R. H	Fruit	86 50			
Troy Laundry Machinery Co.	Laundry fittings	25 00			
Tandy, W. R	Music	25 00			
Toronto Humane Society	Books	2 00			
Vanorder, James	Sand	5 00			
VandeWater, S	Potatoes, etc	1,287 61			
Wilson, T. C	Livery	113 25			
Wilson, W. J	Medicines, etc	313 33			
Wilmot, N	Blacksmithing	65 97			
Waddell, D. A	Harness and repairs	69 60			
Wade, Henry	Chemicals, etc	159 56			
Wilson, W. J	Seeds	4 15			
Whaley, Royce & Co	Music	1 25			
Walsh & Stacey	Dry goods	6 79			
Weavers, S	Fancy goods	10 00			
Walsh, M	Butcher's meat	16 28			
Waddington Bros	do	40 60			
Warwick & Sons	Stationery	11 64			
Young, Geo	Straw	124 53			
			62,641 85		
				87,349 56	
	ASYLUM FOR THE INSANE, HAMILTON.				
	SALARIES.				
James Russell, M.D	Twelve months' salary as Medical Superintendent	2,000 04			
T. J. W. Burgess, M.D	do Assistant do	1,150 08			

R. M. Fairchild, M.D	Four	do	1st Assistant Physician	300 00			
T. W. Reynolds, M.D	Eight	do	do do	600 00			
T. W. Reynolds, M.D	Four	do	2nd Assistant do	266 68			
W. K. Ross	Eight	do	do do	533 36			
Bidwell Way	Twelve	do	Bursar	1,300 08			
J. P. Holden		do	Clerk	800 04			
Daniel McCarthy		do	Storekeeper	750 00			
John Comerford		do	Assistant storekeeper	580 08			
John Marter		do	Engineer	650 04			
Nat Reed		do	Carpenter	550 06			
T. A. Sheehan		do	Assistant carpenter	500 04			
James Martin		do	Baker	450 00			
Andrew Goodall		do	Gardener	500 03			
Thos. Wilkinson		do	Farmer	550 06			
Wm. Gatenby		do	Tailor	450 00			
Mrs. Keegan		do	Matron	500 05			
Mrs. Parker		do	Assistant matron	300 00			
Wm. Fraser		do	Night watchman	365 04			
C. A. Zwick		do	Chief attendant	300 00			
Jas. Slater		do	Supervisor	300 00			
Sundry persons	Wages of attendants, farm hands, maids and other servants			16,817 76			
					30,513 44		
	EXPENSES.						
Aitchison, & Co	Lumber			209 02			
American Express Co	Charges			95			
American Hair Co.	Amusements			3 15			
Andrew, J. B	Rent of property			500 00			
Attwood, M. W. & Sons	Clocks and repairs			14 50			
Archdale, Wilson & Co	Oils			55 03			
Ballantine, A. & Bros	Groceries and provisions			605 06			
do	Butter and eggs			5,908 11			
Burkholder, E. M. & L. A	Honey			27 60			
Burgess, Dr	Amusements			2 95			
Bell Telephone Co	Rent of instrument and messages			74 75			
Burlington Cemetery	Interments			25 50			
Bowman & Moore	Hardware			272 44			
Bruce, John A	Seeds, etc			60 75			
Beardmore & Co	Leather			644 69			
Ballentine, Wm	Eggs			14 80			
Brennan, M. & Sons	Lumber			399 18			
Becket Engine Co	Repairs, etc			90 95			
Bassett, H. D	Repairing sewing machines, etc			4 85			
Barton & Glanford Road Co	Tolls			10 00			
Burns, Samuel	Plants			25 00			
Buffalo Rubber Co	Belting			48 25			
Bradley, Morris & Reid	Lumber			15 12			
Burns, Thomas	Inkstand			3 00			
Cline, R. M	Fish			1,446 99			
	Carried forward			10,462 64	30,513 44	316,339 59	1,296,190 93

PUBLIC INSTITUTIONS MAINTENANCE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	10,462 64	30,513 44	316,339 59	1,296,190 93
	ASYLUM FOR THE INSANE, HAMILTON—*Continued.*				
	EXPENSES—*Continued.*				
Chapman's Sons, Wm. M	Interments	128 00			
Chilman, J. C	Confectionery	30 40			
Clark, H. E.	Recapturing eloper	10 90			
Clark, John A	Drugs, oils and paints	582 79			
Canadian Oil Co	Oil	86 27			
Cox, Wm	Pork and lard	202 47			
Copp Bros	Castings	16 14			
Cooper, H. G. & Co	Repairing implements	23 85			
Canadian Express Co	Charges and duties	17 60			
Cleveland Electrical Mf'g. Co.	Dials	12 00			
Canada Moss Co	Bedding	197 16			
Clark, H. E	Patients' expenses	2 35			
Dickinson, John	Hay, straw, fruit, etc	4,162 68			
Dixon Bros	Fruit, etc	112 16			
Dominion Hotel	Stabling	29 70			
Dominion Express Co.	Messages	75			
Dundas *True-Banner*	Advertising and printing	7 00			
Dodson Bros	Plumbing	51 61			
Dewey, D. R. & Co	Coal	14,743 15			
Dewey, D. & Son	Ice	351 75			
Duncan Bros	Tea	421 58			
Dunlop, James	Apples	21 00			
Elliott, N	Tolls	5 28			
Eastwood, J. & Co	Stationery	682 88			
Evans, Robt. & Co	Seeds	186 28			
Freeman, W. A	Alabastine	36 00			
Fearman, F. W	Hams, bacon, cheese, etc	333 54			
Farmer, Wm	Photos	2 00			
Foster, James	Dials	8 50			
Gerrie, John W	Medicines, etc	334 55			
Grant, A. C	Painting drop curtains	13 00			
Grand Trunk Railway	Freight and cartage	62 01			
Great N. W. Telegraph Co	Messages	13 87			
Gray, Junior	Turnip cutter	12 00			

Grosmans	Music	4 76			
Glassco, G. F. & Co	Hats, caps, etc	129 48			
Gordon, L. & Co	Oils	201 00			
Greenhill, W	Hardware	82 55			
Gatenby, Wm	Allowance for rent	50 00			
Grant Sons, P	Hops and malt	13 50			
Good, A. R	For making cider	1 60			
Greening Wire Co	Repairs to windows, etc	38 86			
Griffin, Richard	For board, etc. of patient	5 79			
Gutta Percha & Rubber Co	Hose and repairs, etc	169 90			
Hamilton Water Works	Water	1,583 26			
Hopkins, Robert	Weaving carpets	85 70			
Hill, William	Meat, etc	28 75			
Hamilton Industrial Works Co.	Castings	5 00			
Hamilton, A. & Co	Drugs, medicines, etc	539 09			
Hamilton Post Office	Rent of box	8 00			
Hamilton Brass Mf'g Co	Repairs	1 50			
Hamilton and Toronto Sewer Pipe Co	Sewer pipe	165 00			
Hamilton Gas Co	Gas	2,484 20			
Howell, W. A	Combs	10 80			
Hope, A. & Co	Hardware	605 13			
Hancock, Mrs	Pipes	8 00			
Helton, W	Ornamental trees	100 00			
Hamilton Vinegar Works	Vinegar	58 63			
Hyslop, D. A	Carpets	71 40			
Houlden, James	Ladders	18 20			
Herald, Joseph	Tuning piano	2 00			
Horning, Wm. W	Recapturing eloper	2 00			
Hunter, Grant & Co	Amusements	1 10			
Hamilton Fertilizer Co	Fertilizers	80 00			
Hiscox, Charles	Cleaning chimneys	10 00			
Hunter, R	Purchase of meat	11,191 51			
Irwin, W. H & Co	Directory	2 50			
Inspector Weights & Measures	Charges	5 50			
Italian Band	Furnishing music	8 00			
Irwin, James	Threshing grain	37 45			
Knox, Morgan & Co	Clothing	692 79			
Keloughton, Thomas	Flowers and plant	340 33			
Kraft, E. L., & Co	Saddlery	51 60			
Kingston Asylum	Brushes, brooms, etc	60 00			
Kerr, A. R., & Co	Clothing	59 61			
Laidlaw Manufacturing Co	Castings	310 02			
Lees, Thomas	Spectacles	32 40			
Long, George	Coal	150 43			
Long, Sylvester	Recapturing eloper	2 00			
Loomis Family	Music	8 00			
Lawry, Thomas, & Son	Hams and lard	86 20			
Morgan Bros	Flour, etc	8,833 85			
	Carried forward	61,801 25	30,513 44	316,339 59	1,296,190 93

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150

PUBLIC INSTITUTIONS MAINTENANCE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	61,801 25	30,513 44	316,339 59	1,296,190 93
	ASYLUM FOR THE INSANE, HAMILTON - *Continued.*				
	EXPENSES—*Continued.*				
Murrry, A. & Co	Clothing, bedding, etc	4,206 52			
Moodie, J. & Sons	Amusements and Christmas decorations	105 20			
Morris, Thos	Oatmeal, etc	547 87			
Malcolm & Souter	Furniture, etc	123 11			
Morrison, Angus & Co	Webbing	103 85			
Moore Co., The D	Stove, furniture, etc	321 53			
Morton, Wm	Fish	14 40			
Morrison, James	Gas fittings	3 00			
Morse Soap Co	Soap	33 12			
Milne, James	Trees	12 50			
Marshall, James A	Honey	71 40			
Marshall, Cyrus	do	28 50			
Montgomery, John	Recapturing eloper	5 37			
Murton, J. W. & Co.	Coal	1,602 58			
Montgomery, John	Patients' expenses	2 15			
McCarthy, D	Allowance for rent	275 08			
Macpherson, Glassco & Co	Groceries	4,242 89			
McLaren, W. H	do	176 23			
McAulay, Robertson & Munro	Clothing	986 99			
McGregor & Parke	Paints, oils, etc	282 63			
McGrath, E	Repairs to implements	15 80			
McKeown, A	Whips, etc	12 75			
McCarty, Callaghan	Cab hire	3 00			
McEvoy, Wm	Honey	68 80			
McCallum & Hall	Furniture	52 92			
McMaster, Darling & Co	Bedding, etc	346 64			
McLaughlin, E	Evergreens	8 00			
Nelson, H. A. & Sons	Brooms, brushes, etc	121 30			
Newton & Galbraith	Groceries, etc	40 68			
Osborne, James & Son	Poultry and fruit	410 80			
Ogilvy, Alexander & Anderson	Clothing	321 75			
O'Reilly, W. T	Travelling expenses	10 00			
Parker & Evans	Boiler compound	449 73			

Philp, Jas. & Son	Harness and repairs	10 00			
Riddall & McKeown	Copper and tinware	9 50			
Rousseaux, J. M. & Co	Groceries, etc	1,119 57			
Ross, Andrew	Blacksmithing, etc	187 65			
Rodger, John	do	114 08			
Roman Catholic Cemetery	Interments	91 50			
Robinson, George	Music	26 00			
Rymall, David	Evergreens	4 50			
Rose, Charles	Recapturing elopers	8 55			
Robertson, Munro & Reed	Clothing	109 07			
Russell, J	Travelling expenses	1 00			
Ramsey & Co	Castings	75			
Stuart, John Son & Co	Groceries, etc	2,586 32			
Stuart, Harvey & Co	do	2,325 15			
Slater, James	Expenses recapturing elopers	21 10			
Squibb, Frank	Plumbing	249 19			
Scott, James	Clothing	56 25			
Somerville, Roy V	Advertising	29 00			
Skinner, James A	Crockery	484 60			
Simmonds, Charles	Expenses attending patient and recapturing elopers	8 53			
Snyder, E. F	Maple syrup	6 25			
Sawyer & Massie Co	Mower knives	9 65			
Stark Co., The Charles	Resetting diamond	1 00			
Singer Manufacturing Co	Sewing machine and repairs	45 26			
Sundry newspapers	Advertising *re* supplies	83 00			
do	Advertising *re* fuel	128 00			
do	Subscriptions and advertisements	23 00			
Troy Laundry Machine Co	Potash, etc	545 73			
Tristram, George	Music	143 50			
Townsend, W. G	Custom's duties	127 60			
Times Printing Co	Advertising	145 00			
Terryberry, Horace	Sawdust	3 00			
Thompson, James	Amusements	16 81			
Ten Eyck, M. H., V.S	Attendance and medicine	25 50			
Toronto Humane Society	Books	2 00			
Watkins, Thos. C	Clothing, etc	641 72			
Wood & Leggat	Hardware	614 99			
Wood, Vallance & Co	do	377 28			
Woods, Walter & Co	Pails, brooms, etc	261 80			
Wright, John	Lard	18 00			
Weller & Frid	Flower pots	77 00			
Warwick & Sons	Printing and binding	7 38			
Williamson, J. M	Registering deed	2 00			
Way, Bidwell	Sundry payments	1 35			
do	Allowance for rent	600 00			
Zwick, Chas. A	do	150 00			
do	Patients' admission to circus	28 50			
			88,368 97		
				118,882 41	
	Carried forward			135,222 00	1,296,190 93

PUBLIC INSTITUTIONS MAINTENANCE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward			435,222 00	1,296,190 93
	ASYLUM FOR IDIOTS, ORILLIA.				
	SALARIES.				
A. H. Beaton, M.D	Twelve months' salary as Medical Superintendent	1,600 00			
B. Mullin	do Bursar	1,100 00			
T. J. Muir	do Storekeeper	700 00			
James Paterson	do Engineer	600 00			
Samuel Woods	do do	500 00			
Jas. Lester	Ten do Fireman	200 00			
James Gunn	Two do do	40 00			
Robt. Stratton	Twelve do Carpenter	500 00			
Arch'd. Thomson	do Farmer	450 00			
John Whitten	do Gardener	300 00			
Sara E. Hardy	do Matron	450 00			
A. F. Brunskill	do Assistant matron	300 00			
M. B. Christie	do Teacher	400 00			
Morris Kiely	do Night Watchman	240 00			
Arthur Gormley	do Messenger and stable keeper	240 00			
Sundry persons	Wages of farm hands, maids and other servants	6,520 26			
			14.140 26		
	EXPENSES.				
Allan, John	Straw	8 00			
Allan, Robert	Turnips	22 18			
Allan, Solomon	Vinegar	14 04			
Ayers, John	Straw	5 12			
Allan, John	Potatoes and turnips	33 80			
Alliston, J. J	Plough points	3 15			
Brammer, Robt	Castings and repairs	258 83			
Bell Telephone Co	Rent	90 00			
Black, A. & Co	Repairs to furniture	6 00			
Bingham, W. G	Hardware	94 98			
Burgess, James	Hay	7 78			
Boyle, Peter	do	20 79			
Boeckh, Chas. & Son	Brushes, etc	25 00			
Central Prison Industries	Shoes	181 50			

Cooke, H. & Co.	Drugs, Stationery, etc	180 04			
Campbell, T. P.	Straw	60 80			
Crockford, Fred	Straw, etc	24 30			
Cotton, Daniel	Wood	312 70			
Coffey, James	do	231 00			
Coffey, Denis	do	147 50			
Campbell, T. P	do	145 00			
Coffey, Timothy, Sr	do	98 75			
Coffey, Denis	Potatoes	12 00			
Coffey, Timothy, Sr	Straw	5 61			
Clark, Charles	Returning eloper	5 00			
Cotton, Simon	Hay	129 00			
Coulson, James	Boiler compounds	35 20			
Crossman & Kendrick	Plants	53 00			
Cardell, Wm	Hay	7 20			
Canning, Wm	do	13 28			
Currie, Alex	do	9 66			
Clare, Henry	Repairing furnace	30 25			
Cameron, D. H	Boiler compound	26 40			
Donnelly, R. M	Farm implements	8 70			
Downie, James	Hay	31 58			
Duffy, Arthur	do	26 96			
Donlay, Wm	do	213 13			
Dunlop, Wm	Straw	4 00			
Duffy, B	Hay	25 83			
Davis, J. F	Music	2 00			
Frost, Richard	Wood	17 25			
Fowlie, Albert	Customs duty on reports	1 75			
Fortier, John D.	Kalsomining and painting	244 59			
Fee, Lucas	Fruit	6 85			
Foster, James	Dials	7 50			
Grand Trunk Railway	Freight	38 70			
Gunn, James	Allowance for board	16 66			
Hatley, J. J.	Meat, poultry, fish, etc	537 58			
Hodges, Richard	Hay	11 92			
Horner, John T	Potatoes	40 85			
Hunter, Rose & Co	Stationery	14 00			
Harvie, John C.	Wood	316 18			
Harvie, John R.	do	77 00			
Horner, John T.	do	86 94			
Hodges, Richard	Turnips	21 13			
Harvie, W. R.	Potatoes	22 30			
Harvie, John	Manure	8 50			
Harvie, Charles	Potatoes	5 40			
Holmes, R	Straw	5 22			
Holmes, R	Potatoes	21 25			
Haynes, F	do	27 61			
Hamilton, G. R. & Co.	Amusements	32 37			
Hay, Robert	Robes	22 00			
	Carried forward	4,223 64	14,140 26	435,222 00	1,296,190 93

PUBLIC INSTITUTIONS MAINTENANCE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	4,223 64	14,140 26	435,222 00	1,296,190 93
	ASYLUM FOR IDIOTS, ORILIA—*Continued.*				
	EXPENSES—*Continued.*				
Inglis, John & Son	Castings	95 96			
Irish, N. B	Potatoes	40 00			
Inspector Weights & Measures	Inspection	1 50			
Johnston, John	Wood	80 50			
Jackson, Wm	Ice	50 00			
Joyce, James	Hay	11 58			
Joyce, Wm	Potatoes	24 13			
Kingston Asylum	Brushes, brooms, etc	17 50			
Kelly, E. J	Hay	21 59			
Kelly, P	do	21 33			
Kyle, Wm	Straw	10 08			
Keith & Fitzsimmons	Plumbing, etc	15 92			
Kean, Frank	Groceries, etc	392 86			
Kean, Frank	Butter	91 45			
Kiely, Morris	Allowance for board	120 00			
Kellog, E. H. & Co	Oils	50 00			
Kinnon, Mrs. J	Baskets	11 65			
Kempling, J. W	Tuning piano	2 00			
Luck, H. W	Blacksmithing	35 61			
Lester, James	Allowance for board	83 30			
Laing, J. B	Auditing books	29 20			
Lehman, Chas	Carrots	34 20			
Leahey, Timothy	Wood	74 75			
Lillie, Philip	Blacksmithing	2 63			
Leigh, M	Mangolds	24 92			
Lloyd, R. W	Repairing machinery	9 00			
Margrett, A	Furniture and repairs	102 65			
Murray, Peter	Printing and advertising	52 90			
Mainer, Robert	Copper, tinware, etc	52 20			
Murphy, John	Potatoes	35 32			
Millar, Melleville	Hardware, coal oil, etc	677 66			
Moore, Chris	Butter, oatmeal, etc	1,992 29			
Mandrell, Thomas	Meat, etc	3,419 35			
Muir, T. J	Allowance for rent	99 96			

Mabden, P.	Lumber	5 05			
Mornington, P. J.	Wood	254 00			
Mitchell, J. W.	Music	10 00			
Mulcahy, Thos	Groceries, etc.	963 84			
Mulcahy, Thos	Rent of house for Superintendent	270 00			
Mason, A. H.	Tuning piano	4 00			
Montgomery, L. B	Castings	2 00			
Mathews, George	Lumber	3 36			
Murphy, E.	Repairing harness	10 65			
Morrison, James	Gas fittings	13 90			
Mullin, B	Sundry payments	65			
McInnis, C.	Coal	14 00			
McMaster & Co.	Clothing, etc.	18 30			
McIntyre, D	Mending shoes, etc.	112 95			
McKay, A. K. & Co.	Clothing	585 44			
McLeod, J. Cameron	Wood	121 25			
McLeod, John	do	67 85			
McNab, Duncan	Straw	18 00			
Nelson, H. A. & Sons	Brushes, brooms, etc.	70 38			
Nelson, F.	Hay	31 28			
Orillia Post Office	Rent and postage stamps	38 50			
Orillia Corporation	Water rate	3 00			
O'Reilly, Dr.	Travelling expenses	11 90			
Ogilvy, Alexander & Anderson	Clothing	183 41			
Peeler, Joseph	Hay	29 02			
Phillips, T. & Co	Tin and ironware	67 95			
Pace & Main	Clothing, etc.	1,107 73			
Perry & Alport	Groceries, etc.	1,893 80			
Paterson, James	Rent	36 00			
Porter, J. T. & Co	Clothing, shoes, etc.	260 13			
Reed, Alexander	Hay	44 24			
Robinson, T. H.	Medicines, etc	103 41			
Regan, Thos	Wood	89 25			
Roberts, R. M.	do	87 50			
Rowe, Chas. H.	do	154 14			
Regan, Thomas	Straw, etc.	29 00			
Rix, Richard	Turnips	5 10			
Ralston, John	Shoes	4 50			
Regan, John	Carrots	18 06			
Ross, Mrs. Jane	Wood	163 35			
Ramsay, Wm	Blacksmithing	33 26			
Regan, John	Potatoes	4 05			
Robinson, Chas. J.	Straw	6 00			
Regan, John	Apples	3 90			
Ronse, W. H.	Potatoes	41 88			
Rogers, Elias & Co	Coal	5,053 73			
Robinson, Emile	Potatoes and hay	65 08			
Robinson, A. P.	Hay	27 10			
Reid, W. R.	Receipe for belting cement	2 00			
	Carried forward	24,151 52	14,140 26	435,222 00	1,296,190 93

PUBLIC INSTITUTIONS MAINTENANCE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	24,151 52	14,140 26	435,222 00	1,296,190 93
	ASYLUM FOR IDIOTS, ORILLIA—*Continued.*				
	EXPENSES—*Continued.*				
Regan, M.	Turnips	15 96			
Simpson, Ezra	Mangolds	5 04			
Swain, Thomas	Interments	93 00			
Selby & Co	Amusements	5 87			
Smith, J. J	Cleaning closets	10 00			
Scadding, H. S	Straw	16 67			
Strachan, Wm	Hay	11 30			
Sundry newspapers	Subscriptions	10 00			
do	Advertising *re* supplies	45 00			
do	do fuel	45 00			
Tresidder & Henderson	Tinware	10 95			
Thomson, George	Fish, fruit, etc	375 30			
Thomson & Dunn	Oats, bran, etc	469 14			
Thomson, J. B	Repairs on clock, cutlery, etc	15 50			
Thomson, Donald C	Wood	115 50			
Thomson, D. & W	do	105 00			
Thomson, David P	Hay	61 27			
Thomson, David S.	Straw	8 00			
Tait, A	Lumber	81 99			
Thomson, D. P.	Oats	20 05			
Times Publishing Co	Printing	15 00			
Teskey Wm	Potatoes	13 00			
Tudhope, W. & Son	Repairs to waggons, etc.	22 15			
Thomson, W. & J., V.S	Attendance and medicine	3 25			
Todd, William	Vegetables	26 65			
Tutton, Francis & Son	Castings, etc	6 10			
Thorburn, James	Hay	8 77			
Toronto Humane Society	Books	2 00			
Vernon, J. H	Shoes, clothing, etc	657 83			
Vick, George	Bread, flour, etc	4,006 61			
Whitney, Wm	Potatoes	101 48			
Whitney, Wm	Straw	14 50			
Williams, J. V	Flour barrels	2 00			
Whiton, G. E	Photographs	9 00			

Winn, James	Plastering, etc	100 26			
Whitney, George	Hay	22 34			
Warwick & Sons	Printing and binding	7 38			
			30,690 38		
				44,830 64	
	CENTRAL PRISON.				
	SALARIES.				
James Massie	Twelve months' salary as Warden	2,000 00			
M. Logan	do Deputy Warden	1,400 00			
W. T. Aikins, M.D	do Physician	1,000 00			
Geo. Wheler	do Bursar	1,300 00			
Thos. Quinn	do Storekeeper	800 00			
J. M. Campbell	do Accountant	400 00			
R. M. Perrse	do Clerk and Librarian	850 00			
Jas. Clarkson	do Engineer	890 00			
G. W. Franks	do Sergeant	700 00			
C. H. Parkhurst	do Baker and Cook	500 00			
Sundry persons	Wages of Guards and other officers	11,511 69			
			21,351 69		
	EXPENSES.				
Adams, T	Meat	1,945 99			
Alexander & Co	Photo plates	2 40			
American Express Co	Charges	2 35			
Allan, Solomon	Vinegar	24 08			
Aikenhead & Crombie	Band iron	4 35			
Allen, J. B. & Co	Hardware	18 13			
Allan, A. A. & Co.	Hats and Caps	120 90			
American Bertillon Prison Bureau	Photograph Camera	16 50			
Bertram J. & A	Hardware	344 65			
Barclay, A	Flour, feed, etc	6,526 08			
Boyle & Richardson	Castings, etc	71 01			
Boyd Bros	Blankets	191 65			
Bilton, Mrs. W	Fruit, fish, etc	108 63			
Bilkan, J. W	Iron frames for beds	66 00			
Beatty, Robt	Recapturing prisoners	10 00			
Brown Bros	Stationery	472 70			
Beard, Thos	Teaming, manure, etc	147 63			
Bengough, Geo	Repairing typewriter, etc	7 00			
Bell Telephone Co	Messages	25			
Blair, J	Teaming	61 50			
Bruce, J	Photographs	2 40			
Brown, Wm	Varnish, etc	14 35			
Bright, T. G. & Co	Medical comforts	15 00			
Brown, Chas. & Co	Leather oil	4 00			
	Carried forward	10,177 55	21,351 69	180,052 64	1,296,190 93

PUBLIC INSTITUTIONS MAINTENANCE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	10,177 55	21,351 69	480,052 64	1,296 190 93
	CENTRAL PRISON—*Continued.*				
	EXPENSES—*Continued.*				
Consumers' Gas Co	Gas	1,059 77			
Coleman, J. F	Coal	3,722 33			
C. P. Railway	Freight charges	80			
Canadian Express Co	Duty and charges	29 75			
Canadian Rubber Co	Clothing, etc	74 20			
Carswell & Co	Dominion Criminal Acts, 1887	1 10			
Cosgrave & Co	Malt and hops	18 50			
C. P. R. Telegraph	Messages	3 47			
Carroll, R	Fire brick, etc	25 10			
Coleman, C. W	Repairing clocks	2 00			
Central Prison Industries	Clothing	4,349 75			
Clarkson, James	Allowance for fuel	50 00			
Cave, W. & Sons	Call brackets	44 00			
Dunn, J. R	Hay	129 19			
Doyle, M	Fish	208 00			
Davies, W. & Co	Meat	62 64			
Dixon, H. C	Postage stamps	150 00			
Doig, A. E	Repairing crank	1 80			
Dineen, W. & D	Hats	62 40			
Duthie, G. & Son	Slate	8 00			
Dossor, W. R	Cleaning chimneys	5 00			
Eby, Blain & Co	Groceries	819 04			
Edgar, J. & Son	Crockery	81 80			
Eckhardt, Kyle & Co	Groceries	1,456 28			
Foster, James	Battery materials, etc	10 20			
Garde, H	Cab hire	1 75			
Grand Trunk Ry	Freight charges	29 94			
G. N. W. Telegraph Co'y	Messages	10 50			
Grenadier Ice Co	Ice	102 00			
Hall, F. & Son	Clothing	43 00			
Hart, E. & Co	Stationery	7 25			
Hunter, R	Milk cow and hogs	104 47			
Hewitt, W	Farm implements	6 50			
Hay, Alex	Amusements	10 00			

Hunter, J. H.	Selecting library	18 00			
Hart, J. S., M.D.	Certificates of insanity	15 00			
Hunter, R.	Purchase of meat	4,645 88			
James, E. B.	Inkstands	5 25			
Knowlton, W. H	Oatmeal	403 75			
Kay, J., Son & Co.	Cocoa mats	70 73			
Kingston Asylum	Brushes	60 00			
Kearns, W. P.	Harness, etc	27 70			
Lauder Bros.	Plumbing, castings, etc	21 20			
Lyon, W. A. & Co.	Photo plates, etc	80 68			
Laing, J. B	Opening new books	25 00			
Lechie, J	Clothing	58 95			
Lugsdin, J. & J.	Fur caps and repairs	27 00			
Long, C.	Expenses recapturing prisoner	22 25			
Lewis Rice & Son	Hardware	123 61			
Miller, H. & Co.	Medicines, paints, oils, etc	1,400 73			
Massie, Jas	On account allowance for table	300 00			
Mercer Reformatory	Laundrying	1,200 00			
Mason & Risch	Repairing organ, etc	1 00			
Massie, James	Travelling expenses	5 85			
do	Membership fee, National Prison Association	10 00			
Massey Manufacturing Co.	Castings, etc	56 22			
Morrison, James	Plumbing	12 00			
Montgomery, A.	Blacksmithing	13 51			
Massie, Jas., jr.	Services in hospital, etc	180 00			
Miller, Wm	Straw, fruit, etc	43 36			
Malcolm, W. B.	Plumbing	2 31			
McDowell, W. & Co.	Ammunition and repairs	8 05			
McMaster, Darling & Co.	Bedding, towelling, etc	751 70			
McCausland & Son	Glass	55 12			
McIntosh, P. & Son	Flour	354 10			
Nordheimer, A. & S.	Use of pianos	10 00			
Nelson, H. A. & Sons	Brooms, etc	59 60			
Notman, J	Stationery	212 33			
Orr, W	Cartage	50			
Ontario Bolt Works	Bolts	18 53			
Prison guards	Services flogging criminals	27 00			
Polk, R. L. & Co.	Directories	8 00			
Perrse, R. M.	Allowance for rent	150 00			
Park, James & Son	Provisions	36 73			
Prisoner's Aid Association	Cab hire *re* religious service	450 00			
Potter, Chas.	Spectacles and thermometers	31 70			
Paterson, P. & Son	Nails, etc	4 50			
Porter, Frank	Dictionary	1 00			
Pantechnetheca	Gas globes	4 70			
Quinn, T.	Allowance for rent	250 00			
Ryan, Wm.	Provisions, etc	3,644 75			
Reynolds, W	Travelling expenses	3 50			
Rogers, Chas. & Sons	Furniture, etc	27 50			
	Carried forward	37,807 37	21,351 69	480,052 64	1,296,190 93

PUBLIC INSTITUTIONS MAINTENANCE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	37,807 37	21,351 69	480,052 64	1,296,190 63
	CENTRAL PRISON—*Continued.*				
	EXPENSES—*Continued.*				
Rice & Davis	Fruit	4 57			
Rice, T. G.	Wire cloth	21 60			
Robertson, J. & Son	Iron piping, etc	45 95			
Ramsey, J. G. & Co	Photographic appliances	23 93			
Staines, H	Blacksmithing	21 04			
Sutherland, W. H.	Blankets	321 60			
Staunton, M. & Co	Wall paper, etc	42 00			
Sinclair, Mrs	Groceries, poultry, etc	67 99			
Smith, C. J. Co	Fuel	2,066 86			
St. Michael's Cathedral	Cab hire *re* religious services	250 00			
Smith, A., V.S.	Attendance and medicine	11 00			
Smith, C. & Co.	Castings and repairs	10 00			
Speight Manufacturing Co.	Axles	9 00			
Seed, M. A., Dry Plate Co.	Plates	27 63			
Strathroy Knitting Co.	Clothing	120 62			
Swan Bros	Groceries	433 25			
Smith, J. B. & Sons	Lumber, etc	3 81			
Street Railway Co.	Car tickets	75 50			
Sundry newspapers	Advertising *re* supplies	40 00			
do	do fuel	42 00			
do	Subscriptions	19 00			
Tye, J	Bed furniture	52 80			
Terry, Edward	Lime, cement, etc	53 25			
Thompson, R.	Biscuits	50			
Taylor, J. & Co.	Soap	211 35			
Thompson, T.	Harness	5 00			
Turner, J. & Son	Repairing wire machine	12 00			
Toronto Humane Society	Books	2 00			
Verral Cab Co.	Cab hire	29 00			
Varty, Wm.	Cedar poles	1 00			
Watson, Jas.	Coffee	155 92			
Wheeler & Bain	Furnishings, etc	82 51			
Wagner, W. J., M.D.	Services	4 00			
Wilson, Jas	Brushes	13 00			

Winfield, T.	Apples	4 50			
Woods, J. M. B., M.D	Services	4 00			
Warwick & Sons	Printing and binding	41 38			
Wheler, Geo.	Rent and fuel allowance	300 00			
do	Sundry payments	13 55			
Yorkville & Carlton Brick Co	Brick	10 00			
Yorke, Lionel	Gravel	18 75			
Young, A. R.	Vegetables	35 00			
			42,514 23		
				3,865 92	
	CENTRAL PRISON INDUSTRIES.				
	SALARIES.				
J. M. Campbell	Twelve months' service as Accountant	400 00			
John White	do Master Shoemaker	600 00			
Joseph McGregor	do do Tailor	600 00			
P. Stafford	do do Carpenter	525 00			
Wm. Crackle	do do Mason	525 00			
W. Huston	do do Gardener	550 00			
H. Batwell	do Foreman Brickmaker	720 00			
L. D. Barnum	do Assistant Engineer	600 00			
G. Hartley	do Guard	600 00			
Wat Scott	Four do Foreman	400 00			
Sundry persons	Wages of guards, watchman, etc.	2,874 24			
			8,394 24		
	EXPENSES.				
Banfield, W. H.	Repairing broom machines	30 50			
Bertram, J. & A.	Hardware	719 98			
Boyd Bros	Clothing	257 43			
Beardmore & Co.	Leather	1,728 40			
Barclay, A.	Horse	150 00			
Brown, A.	Wood	45 00			
Butler, J.	Yarn	111 00			
Beard, Thomas	Sand	462 80			
Butwell, H.	Travelling expenses	12 25			
Crackle, Wm.	Allowance for rent	120 00			
Canadian Express Co	Charges	65			
C. P. Railway Co.	Freight	99			
Canadian Rubber Co.	Hose, etc.	66 61			
Clarry & Co.	Wool	1,254 20			
Darling, R. & Co.	Cloth, etc	292 99			
Doig, A. G	Castings, etc	61 35			
Dilworth, P. J	Copying	10 00			
Grand Trunk Railway Co.	Freight	19 04			
Hallam, John	Leather	2,881 75			
Hunter, Moses	Hay	377 60			
	Carried forward	8,602 54	8,394 24	543,918 56	1,296,190 93

PUBLIC INSTITUTIONS MAINTENANCE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	8,602 54	8,394 21	543,918 56	1,296,190 93
	CENTRAL PRISON INDUSTRIES—*Continued.*				
	EXPENSES—*Continued.*				
Huston, W.	Allowance for rent	120 00			
Hancock, G	Cartage	40			
Hall, Wm	Wages as carpenter	25 00			
Hughes Bros	Cloth, etc	205 25			
Inglis & Hunter	Castings, repairs, etc	99 30			
Inglis J. & Sons	do	259 45			
Kellogg, E. H. & Co.	Oils	94 13			
Laidlaw Manufacturing Co.	Turn tables, etc	33 50			
Lewis, Rice & Sons	Hardware	89 69			
Muldoon, A.	Wood	750 75			
Miller, Hugh & Co	Lettering pencils, etc	11 50			
Massie, James	Travelling expenses for self and engineer	12 60			
McMaster, Darling & Co.	Cloth, etc	3,565 95			
McColl Bros. & Co.	Engine oil	37 30			
McGill, Wm. & Co	Fuel	88 00			
McKay, P. J	Travelling expenses	17 20			
McGregor, J	Allowance for rent	100 00			
McLean, D	Leather, etc	1,070 57			
McCrae & Co	Yarn	125 20			
McLean, D. C. & Co	Poles	44 00			
Nelson, H. A. & Sons	Hardware	1 00			
Ogilvy, Alexander & Anderson	Cloth	1,026 31			
Peeatry, J	Cartage	2 00			
Rogers, Chas. & Son	Mouldings	8 00			
Simpson, R.	Shirting	89			
Smith, John B. & Sons	Lumber	265 16			
Scott, Walter	Travelling expenses	16 20			
Smith, Chas. & Co	Repairing boilers, etc	33 65			
Smith, C. J. Co	Wood	7,783 59			
Statten, J. M	Materials for knitting machine	22 00			
Street Car Co	Tickets	16 00			
Stafford, P	Allowance for rent	120 00			
Sundry persons	Bonuses making bricks	823 95			
do	do brooms	448 90			

Thompson, T.	Harness and repairs	12 00			
Williamson, White & Co.	Tailors' trimmings	292 94			
Watkin, G. & Son	Printing materials	2 25			
Williamson, R. C.	Sewing machine repairs, etc	2 00			
Wheeler & Wilson	do	40			
White, John	Allowance for rent	100 00			
Williams Manufacturing Co.	Sewing machine needles, etc	57 78			
Wheeler, G.	Sundry payments	1 45			
			26,388 80		
				34,783 04	

REFORMATORY FOR BOYS, PENETANGUISHENE.

Salaries.

Thomas McCrosson	Twelve months' salary as	Superintendent	1,600 00		
R. H. Stedman	do	Deputy Superintendent	900 00		
Wm. P. Band	do	Bursar	850 00		
P. H. Spohn, M.D.	do	Physician	700 00		
Rev. G. E. Lloyd	do	Protestant Chaplain	600 00		
Rev. Lancelot Minahan	do	Roman Catholic Chaplain	600 00		
Mrs. C. Fitzgerald	do	Matron	400 00		
E. W. Murphy	do	Protestant school teacher	600 00		
Don Ferguson	do	Assistant do	450 00		
J. McNamara	do	Roman Catholic school teacher	600 00		
Alex. McKellar	do	Steward and storekeeper	800 00		
W. H. Smith	do	Carpenter	600 00		
R. C. Trott	do	Engineer	600 00		
James O. Byrne	do	Shoemaker	550 00		
John Jamieson	do	Tailor	600 00		
Wm. Sales	do	Baker	450 00		
Wm. Young	do	Farmer	450 00		
Thos. Harford	do	Gardener	400 00		
Donald Rae	do	Chief night attendant	500 00		
Sundry persons	Wages of guards and other officers		4,260 00		
				16,510 00	

Expenses.

Allen, William	Hay		168 88		
Allen, James	Attendance in hospital		20 00		
Allen, James	Blasting stone		24 70		
Allen, Mrs. John	Milk		10 30		
Allen, Wm. H.	Services as relieving guard		258 61		
Allen, W. H.	Allowance for rent		38 71		
Ashdown, Richard	Basket		3 00		
Allan, P. C.	Stationery		10 35		
Belleville, H	Carpenter work		14 00		
Bell Telephone Co.	Rent and messages		73 25		
Beck, Chas. & Co.	Groceries, etc		1,379 53		
Breithaupt Bros. & Hall	Leather, etc		521 75		
	Carried forward		2,523 08	16,510 00	578,701 60	1,296,196 93

PUBLIC INSTITUTIONS MAINTENANCE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	2,523 08	16,510 00	578,701 60	1,296,190 93
	REFORMATORY FOR BOYS, PENETANGUISHENE—*Continued.*				
	EXPENSES—*Continued.*				
Bantock, Walter	Bonus	37 50			
Brown Bros	Stationery, etc	66 35			
Briggs, Wm	Catechisms	1 55			
Bain, James	Hymnals, etc	4 10			
Barber, William	Apples	14 00			
Barber & Ellis Co	Stationery	2 25			
Borland, Wm	Livery	2 50			
Bannister, Chas	Expenses recapturing boys	2 00			
Beck, Chas. Manufactu'g Co	Groceries, etc	207 61			
Bouchette, F	Repairs to boats	9 00			
Barron, Wm	Whisperphone	2 50			
Band, Wm	Sundry payments	6 02			
Copeland, G. & Sons	Flour, etc	3,327 80			
Crosson, Wm	Hay	235 34			
Carty, James	Hay and straw	152 30			
Craig & Payette	Castings and repairs	217 89			
Chalus, A, J	Groceries, etc	522 00			
Clark, R. G	Livery *re* religious instruction	50 00			
Currie, Hugh	do do	50 00			
Cyclostyle Co	Paper, etc	3 00			
Cruikshanks, J	Services as cook	4 50			
Carroll, Robert	Cement	45 60			
Charlebois, T	Livery	4 50			
Champion, F	Allowance for rent	60 00			
Cunningham, C	do	60 00			
Claxton, T	Musical instruments	2 50			
Champion, F	Recapturing escaped boys	9 30			
Custom House	Duty charges	8 65			
Corbeau Bros	Furniture, etc	41 72			
Champion, F	Milk	2 60			
Charlebois, Amable	Hire of team	76 50			
Dower, John	Straw	83 88			
Davidson, D	Lumber	81 00			
Darling, Jas. S	Postages, telegrams, etc	218 86			

Dunnet, McPherson & Co.	Hats and caps	65 05			
Day, J.	Services as inspector at examinations	90 00			
Dion, J.	Repairs	2 50			
Dusom, J. P., Estate	Tailor's trimmings	3 00			
Dower, Charles	Expenses recapturing prisoner	10 00			
Dewel, Jeremiah	do do	10 00			
Ferguson, D.	Allowance for rent	60 00			
Fitzgerald, Mrs. C.	Fish, fruit, etc	26 21			
do	Butter and eggs	43 61			
do	Washing and scrubbing	32 40			
Fitzpatrick, Thos	Recapturing escaped boy	14 30			
Foster, James	Material for battery	15 05			
Foster, T. G., & Co.	Upholstering	17 91			
Grand Trunk Ry	Freight charges	79 55			
Gage, W. G. & Co.	Books and stationery	164 13			
Gibbon, Ernest	Gratuity for services in engineer's department	25 00			
Hewson & Osborne	Printing	43 50			
Henderson, J.	Hardware	1 50			
Harford, Thos.	Recapturing escaped boy	1 25			
Hubert, Manuel	Digging grave, etc	1 50			
Hughes Bros	Clothing	21 00			
Hamilton & Toronto Sewer Pipe Co.	Pipe	18 00			
Hubert, C. & J.	Straw	36 47			
Holmes, F. M.	Modulator	1 00			
Institution for the Blind	Baskets	11 50			
Ingram, Walter	Repairing boiler	27 50			
Jennings, H.	Express charges	47 88			
King, George	Hay, lumber, etc.	600 95			
Kellogg, E. H. & Co.	Oils	40 50			
Keith & Fitzsimmons	Plumbing, etc	313 20			
Kingston Asylum	Brushes	14 00			
Lee, Thomas N	Travelling expenses, etc.	66 10			
Landrigan, John	Recapturing escaped boys	1 50			
Lewis Rice & Son.	Hardware	53 12			
Lloyd, Rev. Geo. E.	Books	2 50			
Mercer Reformatory	Clothing	267 43			
Murphy, E. W.	Allowance for rent	99 96			
Murdock, H.	do	60 00			
do	Services as relieving guard	99 99			
do	Rent	5 00			
Morrison, James	Castings, plumbing, etc	235 46			
Minahan, Rev. L.	Expenses in chapel	30 00			
Murphy, E. W.	Recapturing escaped boys	8 30			
Maloney, J. M. & Sons.	Clothing	40 00			
McMaster, Darling & Co.	do	1,671 92			
McNamara, J. S.	Allowance for rent	60 00			
McCrosson, Thos.	To pay servants	195 00			
do	Travelling expenses	14 00			
	Carried forward	12,889 20	16,510 00	578,701 60	1,296,190 93

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163

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	12,889 20	16,510 00	578,701 60	1,296,190 93
	REFORMATORY FOR BOYS, PENETANGUISHENE -*Continued.*				
	EXPENSES—*Continued.*				
McNamara, J	Recapturing escaped boys	10 30			
McKellar, Alex	Expenses connected with outbreak of diphtheria	25 00			
McDonald, John & Co	Furniture and furnishings	17 50			
McGuire. W. J. & Co	Plumbing	117 26			
Nettleton, Chas. A	Oils, etc	1,039 60			
Northey & Co	Repairs, etc	18 75			
Nelson, H. A. & Son	Brushes, brooms, etc	133 54			
Notman, J	Stationery	77 56			
Ouillette, C	Carpenter work	14 00			
Ogilvy, Alexander & Anderson	Clothing, etc	1,624 75			
O'Keefe & Co	Malt and hops	18 75			
Polk, R. L. & Co	Toronto Directory	4 00			
Perault, Wm	Recapturing boys	20 00			
Plouffe, U	Harness and repairs	18 70			
Robins, Thomas	Meat	2,115 42			
Randall, G. J	Grant *re* school rates	150 00			
Rourke, A	Repairing carpets	2 00			
Roberts on & Belyea	Cordwood	3,517 13			
Rankin, Charles	Straw	31 10			
Rourke, A	Recapturing escaped boys	14 05			
Raynor, A. J	Hats and caps	33 00			
Rowsell & Hutchison	Catechisms	53			
Rogers & Sons Co., The C	Furniture	8 60			
Smith, W. H	Repairs, etc	28 50			
Sanders, L. S	Repairs to clock	3 00			
Singer Manufacturing Co	Sewing materials and repairs	5 68			
Smith & Fudger	Thermometers	2 50			
Sadlier, D. & J. & Co	Hymn books, etc	13 41			
Sale, Wm	Travelling expenses	14 32			
Smith, James	Livery	23 00			
Stedman, R. H	Expenses connected with outbreak of diphtheria	25 00			
Smyth, Wm	Freight on horse	6 80			
Samuels, Edward A	Books	6 30			
Shanahan, D. J	Blacksmithing, etc	260 96			

Sinnott, James	Assisting Engineer at waterworks	243 00			
Sneath, Chas. R	Medicines, etc	172 57			
Smith, Chas	Allowance for rent	15 00			
Sale, Wm	do	60 00			
Smith, W. H	Recapturing escaped boy	21 00			
Strathearn, A	Repairs to clock, etc	3 25			
Simpson, Arnall & Co	Hops and malt	30 48			
Score, R. & Son	Clothing	18 00			
Sundry newspapers and periodicals	Subscriptions	23 25			
Sundry newspapers	Advertising *re* supplies	41 11			
Thompson, W. F. H	Peas, straw, wood, etc	971 14			
Thompson, W. M	Clothing	15 00			
Thompson, A., V.S	Attendance and medicine	4 00			
Trott, R. C	Allowance for rent	60 00			
Taylor, John & Co	Soap	47 39			
Tremeer, T	Fruit	9 72			
Toronto Cap Manfg. Co	Caps	25 00			
Toronto Humane Society	Books	2 00			
Wright, Chas. E	Meat, etc	286 09			
Wright, Geo. H	Hardware	858 85			
Wheeler & Bain	House furnishings	57 70			
Winfield, Thomas	Fish, fruit, etc	16 40			
Whaley, Royce & Co	Music	5 50			
Watkin, G. & Son	Printing materials	25 20			
Warwick & Sons	Printing and binding	37 34			
Young, Wm	Allowance for rent	60 00			
			25,398 20		
				41,908 20	

INSTITUTION FOR THE DEAF AND DUMB, BELLEVILLE.

Salaries.

R. Mathison	Twelve months' salary as	Superintendent	1,599 96		
J. B. Murphy	do	Physician	649 92		
A. Livingstone	do	Bursar	849 96		
D. R. Coleman	do	Teacher	1,200 00		
D. M. Beaton	do	do	466 64		
Paul Denys	do	do	999 96		
S. T. Green	do	do	999 96		
J. B. Ashley	do	do	999 96		
Miss Annie Mathison	do	do Articulation	499 92		
Mrs. E. Terill	do	do	649 92		
Miss S. Templeton	do	do	699 96		
Miss M. M. Ostrom	do	do	600 00		
Miss F. Maybee	do	do	333 28		
Mrs. M. J. McGillis	Seven months' salary as	do	175 00		
Jas. Hadden	Four do	do	66 64		
Miss M. Bull	Twelve months' salary as	do	300 00		
	Carried forward		11,091 08	620,609 80	1,296,190 93

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	11,091 08		620,609 80	1.296,190 93
	INSTITUTION FOR THE DEAF AND DUMB, BELLEVILLE—*Continued.*				
	SALARIES—*Continued.*				
D. J. McKillop	Twelve months' salary as Teacher	399 97			
Mrs. S. Craig	do Matron and Housekeeper	399 96			
J. G. Smith	do Storekeeper and Clerk	600 00			
W. Douglas	do Supervisor of boys	549 95			
Miss A. Gallagher	do Seamstress and Supervisor of girls	300 00			
M. O'Meara	do Farmer	399 96			
M. O'Donoghue	do Carpenter	549 96			
W. Langmuir	do Assistant Carpenter	150 00			
Wm. Nurse	do Shoemaker	549 96			
J. Middlemas	do Engineer	600 00			
D. Cunningham	do Baker	424 92			
Thos. Wills	do Gardener	300 00			
Sundry persons	Wages of other officers and servants	2,787 43			
			19,103 19		
	EXPENSES.				
Arnott, Geo	Fruit	67 92			
American Annals of the Deaf	Subscription	99 50			
Allen, C	Cartage, pupils' baggage	4 00			
Anderson, W. A	Apples	3 00			
Ashley, J. B	Travelling expenses	18 25			
Ackerill, D. A., V.S	Attendance and medicines	17 25			
American Asylum	Books	2 66			
Belleville Gas Co	Gas, etc	1,172 09			
Belleville Milk Co	Milk	618 30			
Belleville Post Office	Rent of box	4 00			
Bell Telephone Co	Rent and messages	20 70			
Belleville *Intelligencer*	Advertising	3 06			
Belleville Water Works Co	Copper balls	1 30			
Blind Institute	Baskets	7 50			
Barrett, J. & E	Sewing machine repairs	70			
Bates, N	Apples	4 00			
Babbit, C. H	do	5 00			

Brown, G. & J. Mfg. Co.	Castings, tools, etc	36 61			
Brasier, J	Hats and caps	4 60			
Babcock, E	Apples	1 40			
Babcock, W. R	do	6 60			
Brockville Chemical Co	Superphosphate	24 00			
Beaton, D. M	Travelling expenses	5 05			
Burrows, F	Conducting examinations	51 25			
Conger Bros	Groceries	991 40			
Carson, R	Flour	1,606 50			
Cook, T. & M	Eggs, etc	106 07			
Coleman, D. R	Travelling expenses	27 90			
Crawford, James	Oatmeal	47 50			
Carmichael, W. R	Medicines, etc	147 58			
Collector of Customs	Duty charges	7 60			
Canadian Express Co	Charges	13 10			
Coleman, E. H	Poultry	15 00			
Cook, David, C. Pub. Co	Books	59 35			
Cummins, W	Cartage, pupils' baggage	4 00			
Cullingworth, W. R	Electrotype cuts	10 00			
Cooper, R. B	Grinding barley	7 26			
Carman, T. S	Printing and advertising	213 45			
Caldwell, Joseph	Dentistry	31 00			
Copeland, Jas	Harness	10 05			
C. P. R. Telegraph Co	Messages	5 74			
Chown, W. W. & Co	Tinware	79 81			
Chown, A. & Co	Hardware	9 00			
Curry, S	Manure	4 25			
Donnelly, T	Postage stamps	96 00			
Dickens & Sons	Fish, etc	27 65			
Douglas, R. W. & Co	Books	78 08			
Downey Co	Coal	3,433 10			
Dominion Express Co	Charges	50			
Danford, S	Apples	2 20			
Donoghue, D	Manure	1 50			
Daw, John	Services assisting carpenter	5 25			
Denys, Paul	Travelling expenses	24 00			
Doherty, Mrs	Manure	1 00			
Elvins, R	Hams	20 62			
Frost, J. G	Furniture	63 70			
Fuller, W. D	Fish	148 07			
Fleischman & Co	Yeast	83 05			
Foster, B. V	Lime	3 60			
Finkle, J. R	Evaporated corn	11 65			
Forsyth, D	Footballs, etc	5 50			
Fanbert, Joseph	Attending gate	10 75			
Flint & Holton	Lumber	119 50			
Foster, James	Dials	9 05			
Geary, W. H	Meat	235 19			
Green, Chas	do	484 38			
	Carried forward	10,469 64	19,103 19	620,609 80	1,296,190 93

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	10,469 64	19,103 19	620,609 80	1,296,190 93
	INSTITUTION FOR THE DEAF AND DUMB, BELLEVILLE *Continued.*				
	EXPENSES—*Continued.*				
Grafton, F. E. & Sons	Books	42 40			
G. N. W. Telegraph Co	Messages	6 61			
G. T. Railway Co.	Freight charges	25 69			
Geary, W. H	Hay	13 97			
Green, S. T	Travelling expenses	22 90			
Gallagher, Miss A	do	8 65			
Graham, D	Tallow	3 36			
Gale, Geo. & Sons	Mattress wires	2 50			
Hicks, J. W	Meat	2,367 15			
Huffman, S. R	Repairing and tuning pianos	5 00			
Harold, James	Cask	6 00			
Hart, Philip	Blacksmithing	38 56			
Hovenden, R. J	Artists' materials	2 50			
Hicks, Jacob	Fowls	4 80			
Hurley, J. M	Apples	38 00			
Hall, Samuel	Fowls	10 00			
Huff, G. D	Apples	5 00			
Institute Shoe Shop	Shoes for indigent pupils	358 96			
Jones, W. F	Clothing	68 77			
Johns, Eliza	Fruit	3 75			
Knox, A	Provisions	47 17			
Kenny, W	Manure	1 00			
Kingston Asylum	Brushes, brooms, etc	18 00			
Lang, Chas	Carpentering	312 00			
Lewis, John	Hardware	175 59			
Lazier, S. A	Paper bags	5 25			
Laing, J. B	Auditing accounts	32 50			
Lyon and Patterson	Pens	24 00			
Leavens, D. R	Ice and sawdust	98 00			
Lang, Joshua	Cleaning chimneys	15 00			
Lithgon, R	Fruit	5 60			
Lake & Jenkins	Bus hire	27 50			
Lang, Joshua	Repairs, cement, etc	14 50			
Livingston, A	To purchase poultry, fruit, etc	245 67			

do	Allowance in lieu of supplies	150 00			
Meagher, James	Oats, barley, etc	14 24			
Mallory, B	Potatoes	9 00			
Maybee, N	do	5 60			
Mathison, R	Travelling expenses	72 20			
Mullett, W. H	Fruit	3 50			
Mathison, Miss A	Travelling expenses	8 25			
McRae, W. R	Groceries, etc	487 82			
McCarger, J. K	Cheese, apples, etc	140 91			
McMullen, M	Potatoes	7 20			
McDermid, N	Services assisting gardener	54 00			
McGillis, Mrs. M. J	Retiring allowance	100 00			
McMullen, J	Fruit	5 00			
McCarty, Jas	Wire windows	26 64			
McLaren, John	Fowls	10 40			
McAdam, John	Services assisting baker	7 50			
Nelson, H. A. & Sons	Brushes, brooms, etc	50 76			
Nurse, Wm	Travelling expenses	20 80			
Name Plate M'f'g Co	Plating cutlery	9 70			
Nasmith, J. D	Bread, fruit, etc	22 57			
Notman, J	Stationery	138 01			
Osborne, F	Apples	37 50			
Ostrom, Miss M	Travelling expenses	5 50			
Orr, J. R	Advertising	1 00			
Overell, J. C	Footballs	2 90			
Paterson, Wm	Biscuits, etc	128 74			
Panton Mrs. J	Poultry	10 00			
Parmalee, H. S	Manure	2 25			
Pratt, T. G	Iron pans	2 75			
Pearson, Jas	Apples	3 40			
Pettingall, S	do	7 20			
Panton, W. N	Use of reaper, etc	10 00			
Purdy, A. M	Postage stamps	58 00			
Potts, W. H	Fruit	17 25			
Ritchie, G. & Co	Clothing	431 36			
Reid, W. J. & Co	Crockery	118 73			
Robinson, A	Stationery	112 30			
Rodwell, Geo	Hand stamps and pad	4 00			
Rennie, Wm	Seeds, etc	27 75			
Roblin, Geo. Co	Honey	36 90			
Roblin, J	do	109 24			
Rathbun Co	Sawdust	50			
Reid, R J	Hay	16 52			
Read, Edwin	Potatoes	15 30			
Rathbun Co	Use of steamer	25 00			
Russell, E	Fruit	1 13			
Roblin, John	Fowls	7 00			
Rolph, Smith & Co	Mailing tubes	4 75			
Steele Bros	Seeds	1 80			
	Carried forward	17,068 89	19,103 19	620,609 80	1,296,190 93

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	17,068 89	19,103 19	620,609 80	1,296,190 93
	INSTITUTION FOR THE DEAF AND DUMB, BELLEVILLE—*Continued.*				
	EXPENSES—*Continued.*				
Smith, J. G	Travelling expenses	1 15			
Struthers, D	Fruit	7 00			
Sierichs, E. D	Bread	23 04			
Swanson, Alex	Wages harvesting	2 62			
Sprague, J. & Son	Butter	1,967 18			
Stroud Bros	Tea	69 30			
Smith, C. F. & Co	Iron and tinware	40 53			
Scero, Fred	Clipping horses	6 10			
Sills, S. T	Apples	15 00			
Smith, A	Manure	1 25			
Spangenberg, S. A	Spectacles for pupils	4 25			
Scantleburg, C. B	Stationery, etc	280 36			
Salsbury, S	Potatoes	4 00			
Sundry pupils	Travelling expenses	50 80			
Sundry newspapers	Subscriptions	26 25			
do	Advertising *re* supplies	32 87			
do	do fuel	40 00			
Templeton, R	Medicines, paints and oils	127 82			
Thrasher, W	Hay	10 14			
Taylor, L. C	Fish	16 84			
Twining, Geo	Painting	195 50			
Templeton, Miss R	Travelling expenses	6 45			
Thompson, G. O	Threshing grain	16 06			
Troy Laundry Machine Co	Potash	4 40			
Toronto Humane Society	Books	2 00			
Union Oil Co	Soap stock	65 42			
Vermilyea, T	Apples	17 25			
Vermilyea, C. H	Clothing	45 00			
Vandewater, M	Fowls	12 50			
Walker, J. W	Hardware, etc	147 87			
Williamson, W	Provisions, etc	285 55			
Walker, H	Fish	60			
Walmsley & Spafford	Groceries, etc	855 52			
Walker, J. M. & Co	Castings and repairs	34 60			

Wilson, J. W	Apples	8 00			
Weir, John	Manure	3 00			
Wessel, P. H	Fruit	15 00			
Wallbridge & Clark	Fish, etc	11 71			
Walker, Isabel M	Travelling expenses	3 40			
Wright, Chas	Rubber weather strips	1 00			
Williamson, C	Manure	1 75			
Warwick & Sons	Printing and binding	69 57			
Young, J. E	Blacksmithing	14 75			
			21,615 29		
				40,718 48	

INSTITUTION FOR THE BLIND, BRANTFORD.

Salaries.

A. H. Dymond	Twelve months' salary as	Principal	1,599 96		
W. N. Hossie	do	Bursar	1,050 01		
D. Marquis, M.D	do	Physician	600 00		
Miss M. B. Dunn	do	Matron	399 96		
Miss J. D. Alexander	do	Teacher	500 03		
Miss M. E. Walsh	do	do	500 01		
Miss C. Gillin	do	do	500 01		
Miss M. A. Callaghan	do	do	500 01		
Mrs. R. A. Howson	do	do	350 01		
Miss E. Moore	do	do	500 01		
Miss E. Loveys	do	do	299 98		
Miss L. H. Haycock	do	do	200 01		
Miss E. Johnston	do	do	300 00		
W. Whickers	do	do	900 00		
H. F. Williams	do	do	799 92		
B. G. Connolly	do	do	450 00		
W. G. Raymond	do	do	300 00		
Thos. Truss	do	Trade instructor	1,100 01		
G. D. Lamden	do	Carpenter	123 96		
Thos. Harrison	do	Engineer	600 00		
J. Fitzgerald	do	Stoker	500 02		
D. Willetts	do	Gardener	399 96		
Jas. Grierson	do	Baker	399 96		
Sundry persons	Wages of other officers and servants		3,653 58		
				16,827 62	

Expenses.

American Bible Society	Books	11 70			
Aird, A	Manure	2 50			
American Printing House for the Blind	Books	59 55			
Aldous, J. E. P	Examining music classes	37 00			
Butterworth, H	Hair cutting	2 40			
	Carried forward	116 15	16,827 62	661,328 30	1,296,190 93

PUBLIC INSTITUTIONS MAINTENANCE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	116 15	16,827 62	661,328 30	1,296,190 93
	INSTITUTION FOR THE BLIND, BRANTFORD—*Continued.*				
	EXPENSES—*Continued.*				
Barwell, Miss S	Services as nurse	9 00			
Bowes, Jos	Groceries and provisions	69 70			
do	Postage stamps	192 05			
Bell Telephone Co	Rent and messages	42 30			
Brethour, H. W. & Co	Clothing, etc	23 00			
Baldwin, M. D	Hay	51 93			
Brantford Telegram	Advertising	50			
Britnell, Jno	Books	3 45			
Briggs, Wm	do	1 08			
Brown, Bros	Educational appliances	17 75			
Bishop, J. & Son	Hardware	171 46			
Bucke, Wm	Castings, etc	17 22			
Baker, Geo	Cab hire	1 00			
Cornish, R	Chopping grain	1 10			
Cox, Alfred	Amusements	2 25			
Champion, C	Hardware	45 61			
Cooke, W. P	Books	1 80			
Collector Customs	Duty charges	34 55			
Canadian Express Co	Charges	14 15			
Charlton, T. W	Apples	94 50			
Creyk, James	Clock	4 50			
Crompton, Applebee & Co	Clothing, etc	78 59			
Clark, James	Hay	32 97			
Chalcraft, E	Tinware	19 86			
C. P. R. Telegraph	Telegrams	3 75			
Courier Printing Co	Advertising	2 50			
Cockshutt, T. & Co	Feathers and bedding	22 30			
Douglas, R. W. & Co	Books	1 00			
Dymond, A. H	do	50			
Dunn, M. B	For servants' register	1 00			
Dick, Mrs. M	Hay	36 19			
Dominion Express Co	Charges	85			
Duncan, Chas	Carpets	13 36			
Daniels, J	Harness	15 80			

Ellis, Dr. W. H	Analysis *re* water supply	25 00			
Elliott, F. W	Wood	6 50			
Evangelical Publishing Society for the Blind	Books	10 50			
Elliot, Thos	Coal	2,605 59			
Finkle A. & Co	Gas	1,189 55			
Foster, Geo	Groceries and provisions	1,989 69			
Foster, B. N	Fruit, fowls and fish	203 84			
Fowler, C. B	do	129 45			
Fax, J. A	Feed and fodder	173 31			
Fryer, Henry	Hay	20 78			
Fyle, David	Wood	5 50			
Frank & Walter	Manure	1 50			
Forde, Jackson	Yeast	12 00			
Fleming, W	Blacksmithing	8 60			
Fax, J. A	Manure	1 50			
Fitness & Son	Plastering, etc	10 80			
G. T. Railway Co	Freight charges	17 74			
G. N. W. Telegraph Co	Telegrams	7 32			
Grant, W	Clothing	340 84			
Garvin, J. A	Mattresses and repairs	51 50			
Goold & Knowles	Iron and tinware	95 90			
Grierson, W	Services assisting baker	20 00			
Gilbert, Mrs	Prizes	13 85			
Hess, Jacob	Butter, eggs, etc	1,087 43			
Howden, Thos	Wood	3 50			
Hamilton, J. S. & Co	Medical comforts	2 94			
Heyd, C. B	Eggs	1 20			
Hunter, R. G	Hay	9 67			
Howie, Janet	Making Clothing	3 35			
Henderson, D. S	Repairing wringer, etc	2 60			
Harris, A. Son & Co	Manure	1 50			
Hurdon, John	Groceries, etc	64 61			
Hunt & Colter	Manure	29 50			
do	Livery hire	5 50			
Hay, James B	Farm and garden seeds	94 50			
Hewitt, S	Use of pianos	25 00			
Hanstield, T	Manure	23 25			
Harris, R. R	Crockery, etc	4 10			
Hubert, P. B	Soap barrels	4 50			
Howell, F	Apples	21 00			
Hewitt & Smith	Repairing and tuning pianos	157 09			
Hossie, W. A	Taking inventory of Institute property	30 00			
Hossie, W. N	Sundry payments	29 85			
do	Officers travelling expenses	270 75			
do	Pupils do	121 10			
do	Allowance to sundry pupils for services	100 00			
Jonathan, E	Groceries and provisions	16 53			
Jones, Ada A	Admission of pupils to lecture	6 30			
	Carried forward	10,230 75	16,827 62	661,328 30	1,296,190 93

PUBLIC INSTITUTIONS MAINTENANCE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	10,230 75	16,827 62	661,328 3	1,296,190 93
	INSTITUTION FOR THE BLIND, BRANTFORD—*Continued.*				
	EXPENSES—*Continued.*				
Kerr, Mrs. C	Nursing diphtheria patients	48 00			
Knowles & Knott	Hardware, etc	89 44			
Kelly, M. J	Services re examination	30 00			
Kerr, J. R	Wood	15 30			
Kneas, N. B., Jr	Music books	14 00			
Lee, W	Boiler compound	5 00			
Mellish, A. H. & Co	Stationery	76 40			
Morton, J. Y	Hardware	150 43			
Maloney, W	Services in engine room	20 00			
Morrey, F. T	Directories	4 00			
Milloy, C	Manure	2 00			
Mann, J. & Sons	Coal and lime	48 96			
Moyle, J. R	Hay	17 83			
Manning, F	Feed and fodder	9 36			
Massacar, H. M	Services as nurse	7 00			
McLean, T	Clothing	94 67			
McKay, Bella	Travelling expenses	1 95			
McLellan, Robt	Wood	137 50			
McIrvine, W	Hay	9 50			
McDonald, J	Wood	17 50			
New York Institution for the Blind	Stationery and printing	84 03			
Osborne, A. B., M.D	Services as Oculist	25 00			
Penee, Peer & Plewes	Flour	995 35			
Polk, R. L. & Co	Directory	4 00			
Park & Co	School furnishings	15 00			
Perkins' Institution for the Blind	School prizes, etc	26 43			
Power, Richard	Hair cutting	25 00			
Painter, Herbert	Hay	9 16			
Quinlan, T	Manure	13 00			
Rothwell, B. H	School books	2 10			
Russell, R.	Plumbing	61 19			
Ryerson Bros	Fruit and fish	21 97			

Strowger & Sales	Fish	182 59			
Simmons, S	Bran and feed	122 40			
Sagar, D. S	Medicines, etc	80 40			
Stapleton, J	Boots, etc	132 31			
Schultz Bros	Lumber, etc	255 37			
Sloan, W	Ice	100 00			
Schooley, J. F	Admission to lecture	1 85			
Street Railway	Car tickets	3 35			
Shenston, R. S	Admission for pupils to entertainments	16 95			
Smuler, W. H	Hay	49 20			
Sanderson, R	do	13 40			
Sutherland, J. J	Books, stationery, etc	125 95			
Stewart, J. G., V.S	Horseshoeing and veterinary service	55 64			
Spence, A	Repairing vehicles, etc	66 80			
Salmond, J. R	Stationery	77 03			
Secord, L., M.D	Medical service	134 00			
Sayles, H	Hay	8 19			
Selby & Co	Stationery, etc	21 10			
Scott, A. G	Cab hire	1 25			
Sayles, S	Manure	5 40			
Suckling, S. & Sons	Music	2 87			
Stockwell, J	Dyeing clothing	1 00			
Sage, George	Hay	19 00			
Smith, Sarah E	Admission of pupils to lecture	3 00			
Schell, R. G	do organ recital	2 85			
Sage, C	Threshing grain	5 00			
Stratford, J. H. Hospital	Services of nurses	30 80			
Shallcross, E	Services as nurse *re* diphtheria	8 75			
Sundry newspapers and periodicals	Subscriptions	84 50			
Sundry newspapers	Advertising *re* supplies	20 10			
do	do fuel	35 56			
Tapscott, S	Medicines, etc	92 84			
Tainsh Bros	Painting	20 00			
Troy Laundry Machine Co	Supplies	17 40			
Truss, A	Fruit	11 34			
Thomas, J. S	Inspecting scales	2 00			
Toronto Humane Society	Books	2 00			
Vanstone, A. L	Groceries and provisions	458 77			
Virtue, George	Encyclopædia	6 00			
Webling, E. H	Meat	2,528 84			
Wallace, J. A	Medicines, etc	99 37			
Whitaker, S	Bread	49 74			
Watt & Shenston	Printing and advertising	167 25			
White, E. M	Retiring allowance	37 50			
Willetts, D	Allowance for rent	84 00			
Workshop Department	Furniture, clothing, etc	58 50			
Williams, H	Repairing battery, etc	7 00			
Winter & Elliott	Groceries and provisions	192 42			
	Carried forward	15,813 40	16,827 62	661,328 30	1,296,190 93

PUBLIC INSTITUTIONS MAINTENANCE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	15,813 40	16,827 62	661,328 30	1,296,190 93
	INSTITUTION FOR THE BLIND, BRANTFORD—*Continued.*				
	EXPENSES—*Continued.*				
Waddington, Jos	Hay	22 23			
Whitney, Chas	Furniture	38 35			
Wallace, J. T.	Groceries	39 96			
Waterous Engine Co.	Castings and repairs	30 75			
Waddington, Jos	Teaming	12 50			
Wilkinson, W.	Services *re* examination	30 00			
Williamson & Co.	Music	3 75			
Willis, Jas. A.	Cutting grain	8 00			
Waddington Transfer Co.	Cartage	14 50			
Warwick & Sons.	Printing and binding	19 93			
Yapp, C. W.	Meat	5 00			
			18,038 37		
				34,865 99	
	ANDREW MERCER REFORMATORY.				
	SALARIES.				
Mary J. O'Reilly	Twelve months' salary as Superintendent	900 00			
Lucy M. Coad	do Deputy Superintendent	600 00			
Matilda Elliott	do School teacher	499 98			
Mary A. O'Reilly	do Secretary	300 00			
Mary Campbell	do Instructress	300 00			
Margt. Sheppard	do do	199 98			
Margt. Evans	do do	199 98			
Priscillia Bockas	do Chief attendant	199 98			
John S. King, M.D.	do Physician	799 98			
R. W. Laird	do Bursar	799 99			
James Rankin	do Engineer	600 00			
James Kelly	do do	499 98			
H. Thompson	Eight do Night watchman	266 64			
James Kennedy	Twelve do do	399 96			
R. Wheeler	do Messenger	399 96			
J. F. Barron	do Gardener	399 96			
Sundry persons	Wages of other officers and servants	1,975 97			
			9,342 36		

	Expenses.				
Allen Furniture Co	Mattresses	40 00			
Allen, S.	Vinegar	11 25			
Automatic Refrigerator Co.	Refrigerator	54 00			
Brandon Manufacturing Co.	Wheel barrows	5 40			
Bertram, J. & A.	Hardware	6 19			
Bryce, McMurrich & Co.	Bedding	148 00			
Burns, P. & Co	Coal	2,945 20			
Brown & Burns	Hardware	1 15			
Barron, John F.	Allowance for rent	66 00			
Ballingal, M. A.	Apples	23 45			
Burns, Jr., John	Lamp chimneys	81			
Briggs, W.	Books	3 00			
Botham, T. H.	Medicines	41 69			
Bostwick, Geo. F	Desk	20 00			
Brown Bros.	Books	16 50			
Barron, J. F.	Seeds and plants	17 00			
Central Prison industries	Shoes, etc	872 25			
Consumers' Gas Co.	Gas	558 25			
Coad, L. M	Clothing, etc	18 83			
Coleman, J. F.	Coal	3,122 66			
Crawford, James	Oatmeal	94 80			
Canada Publishing Co	Copy books, etc	13 36			
Cook & Bunker	Rubber stamps, etc	4 00			
Carter, W.	Spool thread	24 44			
Coleman, C. W.	Repairing clocks	5 50			
Canada Rubber Co	Hose, etc	9 25			
Copp, Clark Co	Stationery	8 15			
Copping, Geo. H	Wringers and repairs	34 55			
Couse, H.	Honey	6 60			
Christie, Chas. H.	Milk	6 72			
Dixon, H. C	Postage stamps	58 00			
Doyle, M.	Fish	206 35			
Davie, James	Fruit and fish	36 42			
Down, M.	Eggs	75			
Doran, M.	Fertilizers	48 00			
Dunn, Jas. R	Hay & Straw	48 62			
Davie, Julia	Cab Hire	12 80			
Duthie, G. & Sons	Clearing snow from roofs	28 00			
Evans, J. E.	Washing solution	71 25			
Evans, Geo.	Hardware	26 33			
Eby, Blain & Co	Groceries	1,036 82			
Eaton, T. & Co.	Furniture	44 10			
Edgar, John & Son	Crockery	118 88			
Eckardt, Kyle & Co.	Groceries	344 76			
Elliott, Matilda	Clothing, etc	45 85			
Fleischman & Co	Yeast	24 75			
Fee, L.	Apples	3 25			
	Carried forward	10,333 93	9,342 36	696,194 29	1,296,190 93

PUBLIC INSTITUTIONS MAINTENANCE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	10,333 93	9,342 36	696,194 29	1,296,190 93
	ANDREW MERCER REFORMATORY—*Continued.*				
	EXPENSSS—*Continued.*				
Gaby, Joseph	Blacksmithing	73 05			
Gray, Wm.	Postage stamps	40 00			
Gurney Co, The E. & C.	Castings, etc	3 30			
Gale, Geo. & Son	Mattresses	49 50			
Grenadier, Ice Co	Ice	119 16			
Hamilton, W. B., Son & Co.	Shoes, etc	111 80			
Hickman, J.	Fruit	3 00			
Hearn & Co.	Medicine	90			
Howard, Lizzie	Services as nurse	72 00			
Hathaway, James	Repairing furniture	3 45			
Hunter, R	Purchase of meat	1,752 44			
Inglis, John & Son	Castings and repairs	47 74			
Knowlton, W. H.	Flour	1,731 60			
Knowles, H. A	Medicine	197 82			
Keer, Maj. Gen.	Tea and coffee	145 35			
Keith & Fitzsimons	Plumbing	107 62			
Laird, R. W.	Sundry payments	57 66			
do	Postage stamps	30 84			
do	Allowance for rent	183 26			
Lalor, Thomas	Repairing locks, etc	6 00			
Loft, F. O.	Wages as clerk	96 00			
Lugsdin & Barnett	Harness and repairs	25 55			
Laing, J. B	Opening new books	5 00			
Lewis Rice & Son	Hardware	15 00			
Lugsdin, J. and J.	Hats and caps	10 50			
Lendreville, J.	Tubs for plants	6 25			
Morse Soap Co	Soap	146 15			
Miller, Hugh & Co	Drugs, oils, etc	103 04			
Mason & Risch	Tuning organ, etc	6 50			
Minto Bros	Tea	84 25			
Maloney, John	Lime, etc	4 02			
McMaster, Darling & Co.	Clothing	1,074 34			
McNamara, John	Cartage	8 50			
Nelson, H. A. & Sons	Brushes, brooms, etc	140 42			

Nolan, M	Interments	7 00				
Notman, J	Stationery	97 45				
O'Reilly, M. A	Clothing, etc	54 88				
O'Reilly, M. J	Christmas presents for children, etc	30 00				
O'Reilly, C. E	Syrup	5 50				
O'Donoghoe, John	Express hire	2 00				
Park, Jas. & Sons	Provisions	153 26				
Polk & co., R. L	Directory	4 00				
Penson, S. R. G. & Co	Maps	3 75				
Prisoners' Aid Association	Cab hire *re* religious services	250 00				
Pepper, Wm	Teaming, ploughing, etc	92 00				
Parker & Evans	Boiler compound	40 59				
Patterson & Stevenson	Milk	6 72				
Ryan, Wm	Provisions	911 08				
Rogers & Sons Co, The Chas.	Furniture	32 00				
Roberts, J. & E. H	Repairing locks, etc	4 50				
Ross, John	Carpentering	463 75				
Roberts & Son	Stationery, etc	4 90				
Rogers, E. & Co	Wood	5 00				
Randle, J	Hay	52 96				
Sundry newspapers	Subscriptions	11 60				
do	Advertising, *re* supplies	30 00				
do	do *re* fuel	37 00				
Swan Bros	Groceries	471 26				
Sparrow, W. H	Furniture, etc	62 31				
Stewart & Wood	Paints, oils, etc	45 85				
Street Railway Co	Car tickets	62 00				
Samuel Benjamin & Co	Hardware	1 45				
Smith, Andrew, V. S	Attendance and medicine	58 00				
Singer Manufacturing Co	Repairs, etc	6 79				
Snow, R. B	Fruit, etc	149 31				
Simmers, J. A	Seeds	109 25				
St. Michaels' Cathedral	Cab hire, *re* religious services	100 00				
Slingsby & Sons	Bedding	134 78				
School Supply Co	Mounting plans	75				
Stone & Wellington	Ornamental trees, etc	116 50				
Smith, John B & Sons	Lumber	43 49				
Smith, Geo. T	Laying carpets	19 72				
Todd, T. W	Hay and straw	74 64				
Toronto Soap Co	Soap	358 35				
Thomson, Wm. & Co	Crockery, hardware, etc	59 53				
Turner & Porter	Interment	4 00				
Terry, Edward	Alabastine	14 60				
Toronto Silver Plate Co	Replating	4 00				
Temple, P	Repairing shoes	15 80				
Thomson, Wm	Yarn	29 80				
Toronto Rubber Co	Rubber goods	5 50				
Toronto Gas Stove Co	Laundry heater	6 00				
Tilley, C	Shoes	1 25				
	Carried forward	21,050 81	9,342 36	696,194 29	1,296,190 93	

11 (P.A.)

181

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	21,050 81	9,342 36	696,191 29	1,296,190 93
	ANDREW MERCER REFORMATORY—*Continued.*				
	EXPENSES—*Continued.*				
Toronto Humane Society	Books	2 00			
Upthigrove, E	Repairing sewing machines	4 00			
Upper Canada Bible Society	Bibles, etc	4 35			
Verral Cab Co.	Cab hire *re* religious services	108 00			
Wheeler, R	Milk	675 29			
Webb, W. C	Poultry, etc	26 71			
Water Works Department	Water	1,303 05			
Wheeler & Bain	Furnishings	33 95			
Willard Tract Society	Tracts	12 33			
Wardman & Co	Meat, eggs, etc	7 49			
Wurtele, C	Renovating bedding	5 50			
Warwick & Sons	Printing and binding	135 48			
Wright, R. J	Testing scales	4 00			
			23,372 96		
				32,715 32	
	Total Public Institutions maintenance				728,909 61
	IMMIGRATION.				
	AGENCIES IN EUROPE.				
P. Byrne	Services and allowance as agent in Liverpool		2,168 50		
J. J. Sharp	Services as clerk		254 00		
P. Byrne	Travelling expenses		253 00		
do	Printing, rent, fuel, gas, etc		862 50		
R. L. Polk & Co	Directory		4 00		
Globe Printing Co	Subscription		5 00		
P. Byrne	Balance on hand to be accounted for		342 00		
				3,889 00	

	AGENCIES IN ONTARIO.				
J. A. Welch	Services as constable at railway station and sheds			648 00	
	INCIDENTALS.				
Grand Trunk Railway	Carriage of immigrants	154 24			
C. P. Railway	do	78 64			
			232 88		
D. Davies	Provisions	25 05			
C. Gaunt	Meals, lodgings, etc	322 60			
F. McGuire	do	1 00			
Girls Industrial Institute	do	3 50			
J. Stormont	do	1 00			
E. Sinnott	do	3 00			
			356 15		
Conger Coal Co.	Fuel	13 63			
Elias Rogers & Co	do	29 70			
			43 33		
A. Robertson	Services	407 50			
A. G. Smyth	do re custom house returns, 1887-8	10 00			
			417 50		
T. Coombs	Cartage	1 00			
J. Jordan	do	2 75			
Warwick & Sons	Freight charges on books	5 03			
			8 78		
Warwick & Sons	Pamphlets	953 25			
Copp, Clark Co	Lithographing for pamphlets	140 00			
J. Notman	Paper do	79 20			
G. N. W. Telegraph Co	Telegrams	19 32			
			1,191 77		
D. Spence	To pay indigent immigrants		24 49		
Central Prison Industries	Clothing for constable		38 00		
				2,312 90	
	Total Immigration				6,849 90
	Carried forward				2,031,950 11

TO WHOM PAID.	SERVICE.	$ c.	$ c.		$ c.
	Brought forward				2,031,950 44
	AGRICULTURE.				
The Treasurer Electoral Division Society—	ELECTORAL DIVISION SOCIETIES.				
Addington	Legislative grant	700 00			
Algoma, East	do	700 00			
Algoma, West	do	700 00			
Brant, North	do	700 00			
Brant, South	do	700 00			
Bruce, North	do	700 00			
Bruce, South	do	700 00			
Bruce, Centre	do	700 00			
Brockville	do	700 00			
Carleton	do	700 00			
Cornwall	do	350 00			
Cardwell	do	700 00			
Durham, East	do	700 00			
Durham, West	do	700 00			
Dundas	do	700 00			
Dufferin	do	700 00			
Essex, North	do	700 00			
Essex, South	do	700 00			
Elgin, East	do	700 00			
Elgin, West	do	700 00			
Frontenac	do	700 00			
Grey, East	do	700 00			
Grey, North	do	700 00			
Grey, South	do	700 00			
Glengarry	do	700 00			
Grenville, South	do	700 00			
Huron, East	do	700 00			
Huron, West	do	700 00			
Huron, South	do	700 00			
Halton	do	700 00			
Hastings, East	do	700 00			
Hastings, West	do	700 00			

Hastings, North	do		700 00			
Hamilton	do		350 00			
Haldimand	do		700 00			
Kent, East	do		700 00			
Kent, West	do		700 00			
Lanark, North	do		700 00			
Lanark, South	do		700 00			
Lambton, East	do		700 00			
Lambton, West	do		700 00			
Leeds, South	do		700 00			
Leeds, North & Grenville	do		700 00			
Lennox	do		700 00			
Lincoln	do		700 00			
London	do		350 00			
Middlesex, East	do		700 00			
Middlesex, West	do		700 00			
Middlesex, North	do		700 00			
Monck	do		700 00			
Muskoka	do		700 00			
Niagara	do		350 00			
Northumberland, East	do		700 00			
Northumberland, West	do		700 00			
Norfolk, North	do		700 00			
Norfolk, South	do		700 00			
Oxford, North	do		700 00			
Oxford, South	do		700 00			
Ontario, North	do		700 00			
Ontario, South	do		700 00			
Perth, North	do		700 00			
Perth, South	do		700 00			
Peterboro', East	do		700 00			
Peterboro', West	do		700 00			
Prince Edward	do		700 00			
Prescott	do		700 00			
Peel	do		700 00			
Parry Sound	do		700 00			
Renfrew, North	do		700 00			
Renfrew, South	do		700 00			
Russell	do		700 00			
Simcoe, East	do		700 00			
Simcoe, West	do		700 00			
Simcoe, South	do		700 00			
Stormont	do		700 00			
Toronto	do		550 00			
Victoria, North	do		700 00			
Victoria, South	do		700 00			
Wentworth, North	do		700 00			
Wentworth, South	do		700 00			
Waterloo, North	do		700 00			
		Carried forward	55,150 00			2,031,950 44

AGRICULTURE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	55,150 00			2,031,950 44
	ELECTORAL DIVISION SOCIETIES—*Continued.*				
The Treasurer, Electoral Division Society—					
Waterloo, South	Legislative grant	700 00			
Welland	do	700 00			
Wellington, West	do	700 00			
Wellington, Centre	do	700 00			
Wellington, South	do	700 00			
York, East	do	700 00			
York, West	do	700 00			
York, North	do	700 00			
			60,750 00		
	OUTLYING DISTRICTS.				
Treasurer—					
Armour	Legislative grant	100 00			
Cardiff & Monmouth	do	90 00			
Dysart, etc	do	150 00			
Glamorgan	do	100 00			
Gladstone, Bright, Thompson, etc	do	100 00			
Gravenhurst and Muskoka Township	do	65 00			
Minden, etc	do	150 00			
Muncey, Indian Reserve	do	60 00			
Oneida Indians, Delaware	do	60 00			
Providence Bay and Campbell	do	100 00			
Rama, Dalton, etc	do	50 00			
Six Nation Indians	do	100 00			
Stephenson	do	50 00			
Watt	do	50 00			
			1,225 00		
	GRANTS TO THE ASSOCIATIONS.			61,975 00	
Fruit Growers' Association	Legislative grant		1,800 00		
Entomological Society	do		1,000 00		
Agricultural Association	do		10,000 00		
Ontario Experimental Union	do		200 00		

Ontario Creamery Association	do			1,500 00		
Beekeepers' Association	do			500 00		
Western Dairymen's Associations	do			2,000 00		
Eastern do	do			2,000 00		
Poultry Association	do			600 00		
Eastern Ontario Poultry Association	do			300 00		
					19,900 00	
		FARMERS' INSTITUTES.				
Addington	Legislative grants		25 00			
Brant, North	do	1888-9	50 00			
Brant, South	do		25 00			
Bruce, North	do		25 00			
Bruce, South	do		25 00			
Bruce, Centre	do		25 00			
Brockville	do		25 00			
Dundas	do		25 00			
Durham, West	do		26 00			
Dufferin	do		25 00			
Elgin, East	do		25 00			
Elgin, West	do		25 00			
Frontenac	do		25 00			
Grey, East	do		25 00			
Grey, South	do		25 00			
Grenville, South	do	1887-8	50 00			
Huron, East	do		25 00			
Huron, West	do		25 00			
Huron, South	do		25 00			
Haldimand	do		25 00			
Halton	do		25 00			
Kent, East	do		25 00			
Kent, West	do		25 00			
Lanark, North	do		25 00			
Lanark, South	do		25 00			
Lennox	do		25 00			
Leeds, South	do		25 00			
Lambton, East	do		25 00			
Lincoln	do		25 00			
Middlesex, East	do		25 00			
Middlesex, North	do		25 00			
Northumberland, East	do		25 00			
Northumberland, West	do		25 00			
Norfolk, North	do		25 00			
Oxford, North	do		25 00			
Oxford, South	do		25 00			
Peel	do		25 00			
		Carried forward	975 00		81,875 00	2,031,950 44

AGRICULTURE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	975 00		81,875 00	2,031,950 44
	FARMERS' INSTITUTES—*Continued.*				
Peterborough, West	Legislative grant	25 00			
Russell	do	25 00			
Renfrew, South	do	25 00			
Simcoe, Centre	do	25 00			
Simcoe, South	do	25 00			
Stormont	do	25 00			
Victoria, East	do	25 00			
Victoria, West	do	25 00			
Wellington, Centre	do	25 00			
Wellington, South	do	25 00			
Wellington, West	do	25 00			
Welland	do	25 00			
Wentworth, North	do	25 00			
Wentworth, South	do	25 00			
Waterloo, North	do	25 00			
Waterloo, South	do	25 00			
York, East	do	25 00			
York, West	do	25 00			
York, North	do	25 00			
Ontario Provincial Farmer's Institute	do	850 00	2,300 00		
G. N. W. Telegraph Co	Telegrams	17 45			
C. P. R. Telegraph	do	3 23			
Postmaster	Postage stamps	11 00			
Innes & Davidson	Printing circulars	5 50			
A. J. Little	Cotton for charts	1 75			
P. Spragge	Cab hire	7 50			
Express Co	Charges	30	46 73		
J. J. Hobson	Services attending Institutes	80 00			
S. Rennie	do	87 50			
D. Nicol	do	47 50			
J. McMillan	do	35 00			
E. Jeffs	do	42 50			
A. H. Pettit	do	40 00			

J. Kernighan	do	40 00		
F. C. Grenside	do	50 00		
A. McD. Allan	Services and expenses	42 50	165 00	
J. Dryden	Travelling expenses	58 70		
J. W. Robertson	do	561 35		
F. C. Grenside	do	104 70		
E. Jeffs	do	89 34		
J. H. Panton	do	99 00		
C. C. James	do	160 82		
Thomas Shaw	do	102 56		
James Mills	do	119 47		
A. H. Pettit	do	16 70		
D. Derbyshire	do	40 00		
J. J. Hobson	do	38 55		
A. Blue	do	8 75		
N. Awrey	do	35 80		
A. McCallum	On account travelling expenses of Professors	1,000 00	2,435 74	5,247 47
	INCIDENTALS.			
J. J. Hobson	Services and expenses *re* Advisory Board	18 50		
Edward Jeffs	do	17 00		
G. B. Boyce	do	24 00		
D. A. Dowling	do	32 00		
W. Donaldson	do	17 75		
J. McMillan	do	13 00		
J. S. Smith	do	12 00	134 25	
J. Notman	Paper, Report Dairymen's Association	133 35		
do	do Poultry Association	4 84		
do	do Agricultural College	281 11		
do	do Agriculture and Arts Association	265 97		
do	do Experimental Union	15 30		
do	do Entomological Report	89 78		
do	do Fruit Growers' Association	172 00		
do	do Ontario exhibit	2 73		
do	do Bulletins, Agricultural College	212 21	1,177 29	
Warwick & Sons	Printing and binding report, Agriculture and Arts Association	768 10		
do	do Experimental Union	38 04		
do	do Dairymen's Association	131 03		
do	do Agricultural College	373 86		
do	do Entomological Society	86 45		
do	do Poultry Association	17 43		
do	do Fruit Growers' Association	207 99		
do	do Forestry	54 67		
do	Printing Bulletins, Agricultural College	253 71	1,931 28	
	Carried forward		3,242 82	87,122 47	2,031,950 44

AGRICULTURE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		3,242 82	87,122 47	2,031,950 44
	INCIDENTALS—*Continued.*				
L. Wolverton	Engravings *re* Fruit Growers' Association report	50 00			
Williamson & Co	Prize books, Veterinary College	20 00			
			70 00		
Western Dairymen's Association	Grant *re* Factory inspection	500 00			
Eastern Dairymen's Association	do	500 00			
Parry Sound Agricultural Society	Special grant *re* exhibition, Toronto	100 00			
J. J. O'Connor	Grant *re* mineral exhibit, do	200 00			
			1,300 00		
Warwick & Sons	Printing Bulletins, Horse disease, Kent	4 32			
J. Stevenson & Son	Material for experiments, do	7 30			
P. H. Bryce, M.D	Expenses of commission and report, Horse disease, Kent	165 00			
			176 62		
Warwick & Sons	Printing Bulletins, Flour moth, Ireland's Mills	50 86			
H. Miller & Co	Disinfectants, do	33 65			
J. Morrison	Instruments for disinfecting do	5 25			
Map & School Supply Co	Instruments for disinfecting do	11 40			
J. Milne & Co	do do	11 70			
J. A. Simmers	do do	12 00			
I. A. Watmough	Loan of stove, etc. do	4 15			
J. J. Cassidy, M.D	Attendance at committee meetings do	5 00			
A. H. Lehman, M.D	Services and disbursements do	162 90			
			296 91		
R. H. Lawder	Services and expenses *re* sugar beet inquiry		85 10		
				5,171 45	
	FORESTRY.				
R. W. Phipps	Twelve months' salary as Clerk		1,500 00		
J. Notman	Stationery	78 95			
G. M. Rose	Postage stamps	22 00			
R. W. Phipps	Travelling expenses	234 34			
			335 29		
				1,835 29	

		TREE PLANTING.				
Treasurer—						
Township	Blenheim	One half amount paid by Municipality		8 60		
do	Chinguacousy	do		28 20		
do	Clinton	do		3 12		
do	Cramahe	do		4 87		
do	Dereham	do		64 00		
do	Dumfries, South.	do		19 75		
do	Hope	do		5 12		
do	King	do		12 25		
do	Louth	do		4 00		
do	Monohan, South.	do		19 75		
do	Markham	do		42 00		
do	Osprey	do		5 62		
do	Oxford, West	do		8 20		
do	Pilkington	do		76 37		
do	Seneca	do		4 25		
do	Warwick	do		50 12		
do	Whitby	do		8 75		
					364 97	
		BUREAU OF STATISTICS.				
Warwick & Sons		Printing and binding	997 28			
J. Notman		Stationery	436 57			
				1,433 85		
W. J. Dickson		Almanac	60			
Williamson & Co.		Statistical books	7 50			
				8 10		
Express Co.		Charges	1 45			
A. Blue		To pay express charges, etc.	15 52			
Street Railway		Car tickets	2 00			
				18 97		
C. J. Isele		Services collecting statistics	60 00			
J. O. Brien		do	80 00			
Geo. Hockenhull		do	60 00			
J. J. O'Neill		do	24 00			
J. Tweeds		do	50 00			
J. Harris		do	40 00			
H. T. Waterton		do	30 00			
R. J. Eberts		do	50 00			
J. Nightingale		do	90 00			
D. B. Fogg		do	24 00			
J. Bell		do	52 50			
D. R. Gibson		do	80 00			
T. G. Priestland		do	80 00			
J. Brockman		do	24 00			
		Carried forward	744 50	1,460 92	94,494 18	2,031,950 44

AGRICULTURE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	744 50	1,460 92	94,494 18	2,031,950 44
	BUREAU OF STATISTICS—*Continued.*				
	EXPENSES—*Continued.*				
F. A. Smith	Services collecting statistics	24 00			
R. Webster	do	30 00			
J. R. Boothby	do	72 00			
O. K. Fraser	do	30 00			
Alex. Poe	do	30 00			
T. Nunan	do	26 00			
A. W. Beardsley	do	25 00			
A. Keefer	do	14 00			
R. W. Hutchinson	do	20 00			
J. Regan	do	25 00			
J. Summers	do	60 00			
J. Vicary	do	34 00			
W. Burnill	do	42 00			
J. Watson	do	20 00			
G. Chamberlain	do	44 00			
T. O. Evans	do	20 00			
W. Dobson	do	40 00			
W. Allen	do	20 00			
R. L. Johnston	Services as extra Clerk compiling returns	652 50			
E. N. Jory	do	46 00			
D. C. Ross	do	166 00			
G. H. Preston	do	144 00			
A. W. Partridge	do	40 00			
W. A. Stewart	Meteorological services	50 00			
			2,419 00		
D. J. O'Donoghue	Travelling expenses	125 00			
A. Blue	do	62 00			
			187 00		
Williamson & Co	Prize Books, etc		39 25		
				4,106 17	

AGRICULTURAL COLLEGE AND EXPERIMENTAL FARM, GUELPH.

Salaries.

James Mills	Twelve months' salary as President	2,000 00		
Thomas Shaw	do Professor of Agriculture	2,000 00		
J. A. W. Robertson	do do Dairying	2,000 00		
C. C. James	do do Chemistry	1,500 00		
J. H. Panton	do do Biology and Horticulture	1,500 00		
F. C. Grenside	do do Veterinary Science	800 00		
E. L. Hunt	do Resident Mathematical Master	900 00		
A. McCallum	do Bursar	900 00		
J. W. Ellerby	do Shorthand writer and Tutor	300 00		
E. W. McGuire	do Physician	300 00		
W. Clark	do Drill Instructor	150 00		
Mrs. Martin	Seven do Matron	199 98		
Mrs. Craig	Two and one-half months' salary as Matron	83 32		
J. A. Angell	Twelve months' salary as Engineer	700 00		
F. W. Winters	Services assisting Engineer	31 60		
W. Squirrell	Four and one-half months' salary as Assistant Engineer	157 50		
F. Watson	Five months' salary as Stoker	100 00		
J. Hohenadel	Twelve do Janitor and Messenger	240 00		
J. Squirrell	Nine do Night Watchman	225 00		
			14,087 40	

Expenses.

J. & R. Miller	Meat	2,502 50		
D. Nasmith	do	330 13		
J. A. McHardy	do	88 14		
K. S. Townsend	Poultry	1 35		
H. N. Norish	do	3 62		
R. Middleton	do	7 33		
A. McCallum	To purchase poultry, etc	17 05		
H. Walker & Son	Fish, fruit, etc	174 81		
			3,124 93	
G. Williams	Bread, biscuit, etc	787 07		
J. Harris	do	68 69		
			855 76	
R. Mitchell	Groceries, etc	2,075 01		
J. E. McElderry	do	42 70		
F. H. Wilcock	do	24 90		
D. Derbyshire	Syrup	18 00		
J. Clugston	Honey	10 00		
			2,170 61	
Experimental Dairy	Butter	9 37		
Ontario Creamery	do	210 10		
H. N. Norrish	do	16 17		
	Carried forward	235 64	20,238 70	98,600 35	2,031,950 44

AGRICULTURE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	235 64	20,238 70	98,600 35	2,031,950 44
	AGRICULTURAL COLLEGE, GUELPH—*Continued.*				
	EXPENSES—*Continued.*				
Mrs. Quirk	Butter	274 09			
Mrs. Brooks	do	11 38			
Mrs. Smith	do	23 19			
A. Hanning	Eggs, etc	18 24			
N. Moore	Milk	37			
			562 91		
J. A. Currie	Potatoes	6 90			
A. Hurren	do	9 00			
M. A. Reeve	Apples	1 25			
D. Macfarlane	do	15 40			
J. Mounce	do	3 60			
B. Medcalf	do	80			
W. Willoughby	do	74 70			
J. Medcalf	do	1 60			
G. Dudgeon	do	6 00			
K. S. Townsend	Fruit	13 19			
A. J. Fitzsimmons	do	11 85			
			144 29		
Guelph Soap Co	Soap	114 38			
M. Buck	Laundry stove	15 00			
Mrs. Parker	Cleaning, etc	2 00			
H. Hughes	do	36 00			
Mrs. Griffinham	do	2 00			
			169 38		
Pay lists	Servants, cooks, laundresses, etc	1,375 10			
Mrs. Laing	Wages as servant	6 66			
Mrs. Turner	do	3 00			
M. Laing	do	8 60			
J. McDonald	do	5 90			
S. Johnson	do	5 00			
K. McDonald	do	5 90			
E. Smith	do	5 00			
C. Whitehead	do	4 00			
B. McDonald	do	18 00			
			1,437 16		

Innes & Davidson	Printing	166 75			
H. Gummer	do	29 00			
James Hough	do	10 00			
F. Nunan	Binding, etc.	9 75			
Sundry newspapers	Subscriptions and advertisements	141 21			
A. D. Pringle	Rubber stamps	1 50			
J. A. Nelles	Stationery	23 45			
T. J. Day	do	45 42			
G. Bengough	do	5 31			
A. Butchart	do	7 25			
John Smith	do	8 52			
H. R. Nixon	Postage stamps	60			
Guelph Post Office	Postage and rent of box	182 19			
			630 98		
W. G. Smith & Co	Chemicals, etc	81 38			
Eimer & Amend	do	150 28			
Burr Bros	Stools for Laboratory	2 92			
Walker & Mahoney	Pipes, etc., do	10 20			
R. Mahoney	Furnishings do	15 60			
P. H. De Caulet	do do	1 12			
E. W. McGuire, M.D.	Drugs, etc.	5 00			
			266 50		
D Appleton & Co	Books	12 50			
J. H. Saunders Publishing Co	do	3 00			
W. Briggs	do	11 37			
Vannevar & Co	do	6 90			
Rowsell & Hutchison	do	3 80			
C. Scribner's Sons	do	11 00			
J. E. Bryant & Co	do	20 00			
Williamson & Co	do	84 29			
J. E. Potter & Co	do	1 80			
A. G. Emsley	do	90			
J. Wiley & Son	do	1 74			
T. J. Day	Magazines	75 90			
C. Fult	Porcupine	5 00			
			238 20		
G. D. Pringle	Engraving Medals	4 90			
B. Pearsall	Medals	66 00			
Toronto Engraving Co	Electrotypes	2 50			
S. J. Dixon	Photos of graduating class	13 12			
			86 52		
W. A. Douglas	Services as examiner	6 00			
S. C. Smoke	do	12 00			
			18 00		
G. N. W. Telegraph Co	Telegrams	12 26			
C. P. R. Telegraph	do	1 80			
Bell Telephone Co	Rent of instrument and messages	52 95			
Collector of Customs	Duty charges	22 60			
Express Co	Charges	12 30			
	Carried forward	101 91	23,792 61	98,600 35	2,031,950 44

AGRICULTURE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	101 91	23,792 64	98,600 35	2,031,950 44
	AGRICULTURAL COLLEGE, GUELPH—*Continued.*				
	EXPENSES—*Continued.*				
G. T. Railway Co	Freight charges	9 25			
E. Morris	Cab hire	6 00			
T. E. Rudd	do	1 75			
J. Hadden	do	50			
A. McKenzie	do	2 00			
R. Field	do	3 00			
			124 41		
F. Watson	Services in engine room	11 38			
F. Winter	do	38 15			
J. A. Angell	To pay help in engine room	19 00			
J. Squirrell	Services	1 25			
J. W. Randall	Police service	2 00			
T. P. Carter	Cutting ice	18 42			
A. Parker	Teaming ice	5 40			
Jas. Lafferty	Packing ice	5 00			
			100 60		
G. Beatty	Harness, etc	6 00			
H. Medcalf	do	2 50			
T. Luscomb	do	1 00			
			9 50		
S. & G. Penfold	Repairing vehicles, etc	30 90			
Berberick & O'Donell	do	2 00			
W. Sallows	do	10 45			
C. Chase	do	19 50			
			62 85		
H. Dies	Labor re sewage	19 50			
D. Connan	do	4 38			
P. McCoy	do	4 38			
J. A. Angell	do	6 60			
Bennalick & Foster	Cistern	30 00			
			64 86		
James Mills	Travelling expenses	44 10			
C. C. James	do	3 00			
J. A. Angell	do	3 50			

J. H. Panton	do	2 50			
Mrs. Craig	do	9 98			
			63 08		
A. McCallum	Sundry payments		6 94		
			24,224 88		
	Less receipts:—				
	Entrance and tuition fees	2,691 43			
	Board	3,689 19			
	Sundries	189 83			
			6,570 45		
				17,654 43	
	EXPERIMENTAL FARM.				
	FARM PROPER.				
R. Stewart	Lumber, fencing, etc.	207 22			
W. Reid	Fence posts	146 25			
J. M. Bond & Co	Barbed wire	26 96			
G. B. Morris & Co	do	49 06			
G. A. Richardson	Nails	5 90			
Pay lists	Farm officers	583 30			
do	Farm laborers, etc	2,163 01			
G. H. Bandman	Horses	500 00			
Ira Burrows	Team of mares	400 00			
J. Jackson	Cows, etc	61 43			
A. Williamson	do	218 00			
A. Bowman	do	100 00			
R. Ellis	Durham heifer	240 00			
W. Foulger	Jersey heifer	215 00			
Estate V. E. Fuller	Jersey cows, and bull	580 00			
A. N. Patton	Bull calf	10 00			
J. W. Snell & Bros	Cotswold ram	30 00			
D. Foote	Sheep	25 00			
C. Remie	Lambs	50 70			
J. Auld	do	79 00			
F. W. Ansty	do	27 00			
C. Garrow	do	28 00			
J. Snell & Sons	Berkshire sow	75 00			
J. G. Snell & Bros	do	50 00			
J. Mulroney	Pigs	27 00			
J. J. Sutton	do	43 50			
A. Armstrong	Steers for feeding	500 00			
A. McCallum	Accountable warrant to purchase stock	4,000 00			
A. Parker	Services and expenses buying stock	9 35			
J. J. Robson	do	58 60			
E. A. Wells	do	9 20			
J. Goldie	Shorts, bran, etc.	275 80			
W. Carter	Oats, do	700 55			
James Hewer	do do	12 11			
	Carried forward	14,506 97		116,254 78	2,031,950 44

AGRICULTURE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	11,506 97		116,254 78	2,031,950 44
	EXPERIMENTAL FARM—*Continued.*				
	FARM PROPER—*Continued.*				
H. Murton	Chopped grain	4 40			
R. Nutchell	Salt	1 50			
Watson Bros	do	2 00			
Thorley Horse and Cattle Food Co	Food	29 45			
E. R. Patmore	Hay	100 23			
J. Place	do	115 99			
A. McManus	do	106 20			
W. Hamilton	do	9 60			
J. Condy	do	167 31			
B. Bye	do	299 62			
J. Hunter	do	88 65			
J. Laidlaw	do	382 14			
A. Thompson	do	16 55			
A. Thomson	Straw	10 00			
H. McMillan	do	30 00			
G. Wilson	Sawdust	20 00			
Osler, Teetzel & Co	Service of animals	20 00			
W. Whitelow	do	10 00			
F. C. Grenside	do	15 00			
F. H. Wilcocks	do	1 50			
A. C. Hallman & Co	do	22 00			
J. McAteer	Boarding horses	14 85			
J. Carter	do	6 00			
W. Whitelow	do	12 00			
Central Hotel	Stabling horses	3 00			
C. R. Doran	do	3 00			
F. C. Grenside	Medicines	27 50			
A. Petrie	do	80			
J. H. Reed, V.S.	Attendance	5 00			
Laidlaw & Jackson	Registering sheep	4 00			
American Shropshire Association	do	10 00			
J. Mann	Seed oats	17 57			

J. Taws	do		34 98		
J. Hanlon	do		21 60		
T. Elmes	Seed wheat		3 05		
J. A. Bruce & Co.	Seed grain		338 86		
W. Rennie	Seeds		17 31		
G. Dudgeon	do		1 00		
J. Hewer	do		2 25		
R. Mitchell	do		50		
P. McNaughton	Seed potatoes		17 40		
W. Rennie	do		1 60		
R. Mitchell	do		3 00		
A. Hurron	do		5 50		
M. Hodgson	Manure		7 75		
H. Merlihan	do		8 25		
Mrs. Hadden	do		3 00		
R. Fields	do		6 25		
J. Hill	do		3 00		
M. Fehan	do		2 00		
M. Philpots	do		4 00		
B. McTague	do		4 25		
T. E. Rudd	do		4 00		
J. Stroame	do		10 80		
R. Howie	do		7 20		
J. Robinson	do		21 00		
J. Rydall	do		9 75		
J. Hewer	do		75		
G. Patterson	do		1 00		
A. Stroame	do		1 70		
G. Searle	do		1 70		
W. Verney	do		85		
J. Hogan	do		6 75		
M. Hewer	do		75		
W. Woods	do		7 50		
G. Woods	do		9 00		
A. McEachern	do		75		
T. Merlihan	do		4 50		
A. Farr	do		2 25		
W. F. Ward	do		1 00		
M. French	do		3 00		
P. Anderson	do		2 25		
G. Cross	do		3 75		
Mrs. Burmingham	do		2 40		
P. Mulroney	do		75		
Mrs. Keough	do		1 50		
T. Stroame	do		10 80		
C. J. Isle	do		1 00		
R. A. Waters	do		2 25		
H. G. Cockburn	do		5 25		
T. Douglas	do		75		
	Carried forward		13,673 33	....	116,254 78	2,031,950 44

AGRICULTURE - *Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	13,673 33		116,254 78	2,031,950 44
	EXPERIMENAL FARM—*Continued.*				
	FARM PROPER—*Continued.*				
H. Freeman	Manure	1 50			
J. Kerr	do	75			
J. H. Reed	do	21 00			
J. Palmer	do	4 50			
G. Hewer	do	4 50			
G. Williams	do	7 20			
R. Reinhardt	do	3 75			
W. Emory	do	7 50			
H. Mahoney	do	75			
P. Spragge	do	6 75			
J. Gibson	do	3 75			
F. C. Grenside	do	11 25			
F. M. Chubb	do	1 00			
M. J. Doran	Fertilizer	4 00			
Tolton Bros.	Binding twine	45 60			
R. Stewart	Lumber, for repairs, etc	206 43			
J. Howitt	Sand	18 00			
W. Sunley	Castings, etc	10 65			
L. D. Sawyer Mfg. Co	do	12 55			
G. A. Richardson	Locks, bolts, etc	4 86			
Walker & Maloney	Plumbing, etc	22 15			
C. Thain	Repairing vehicles, etc	10 80			
S. G. Penfold	do	12 40			
Tolton Bros.	Repairing implements	1 55			
G. Beattie	do harness, etc	6 65			
F. Watson	do engine	1 09			
Walker & Hippinson	do do	9 69			
W. Sallows	Blacksmithing	129 11			
W. B. Kerr	do	8 50			
D. McKenzie	do	1 00			
E. C. Pass	Painting, etc	50 00			
G. C. Stewart	Whitewashing	2 00			

Mrs. Turner	Cleaning	5 50			
Mrs. A. Parker	do	2 00			
J. M. Bond & Co	Furnishings	13 45			
Ball & Gordon	do	3 89			
G. Beattie	do	23 25			
W. G. Smith & Co	do	1 15			
Tolton Bros	do	95			
W. Barnes	do	4 76			
F. W. Stone	do	6 13			
W. Sallows	do	1 65			
M. Medcalf	do	18 13			
J. A. Nelles	do	16 83			
G. A. Richardson	do	9 07			
T. Bond	do	13 22			
D. E. Macdonald	do	1 50			
R. Mitchell	do	4 70			
T. J. Day	do	3 96			
R. Piggott	do	8 50			
G. B. Morris & Co	Hardware, tc	46 64			
J. M. Bond & Co	do	41 94			
Harvey & Co	Tools, etc	9 45			
G. B. Morris & Co	Baskets, rubber belting, etc	61 21			
Copp Bros	Steam heater	26 00			
W. Heather	Water pails	1 25			
F. W. Stone	Sheep dip and bull rings	4 10			
R. Pigott	Ploughshares	1 50			
Kloepfer & Co	Fuel	29 58			
W. G. Smith & Co	Coal oil, etc	12 90			
Guelph Post Office	Postage stamps, etc	67 50			
Collector Customs	Duty charges	9 45			
Express Co	Charges	7 50			
Bell Telephone Co	Messages	50			
G. N. W. Telegraph Co	Telegrams	7 36			
C. P. R. Telegraph	do	1 05			
G. T. Railway Co	Freight charges	138 93			
C. P. Railway Co	do	7 50			
P. Spragge	Fees as Auctioneer	15 00			
C. E. S. Black	Inspecting scales	9 55			
J. A. Nelles	Stationery	3 45			
T. J. Day	do	4 20			
Burrow, Stewart & Milne	Repairing scales	15 00			
Mrs. Parker	Mending bags	4 86			
T. Shaw	Travelling expenses, *re* purchase of stock, etc	182 87			
J. E. Storey	do	15 25			
J. J. Wilkinson	do	1 70			
E. Rennie	do	7 95			
F. C. Grenside	do	10 00			
E. Wells	do	5 20			
	Carried forward	15,192 59		116,254 78	2,031,950 44

AGRICULTURE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	15,192 59		116,254 78	2,031,950 44
	EXPERIMENTAL FARM—*Continued.*				
	FARM PROPER—*Continued.*				
A. McCallum	Sundry payments	2 40			
Innes & Davidson	Printing	10 50			
Dominion Shorthorn Association	Subscription	8 00			
Sundry newspapers	Advertising	11 66			
			15,225 15		
	EXPERIMENTAL PLOTS.				
C. A. Zavitz	Twelve months' salary as Assistant Superintendent	600 00			
Pay lists	Wages of Instructor and labourers	458 28			
J. A. Bruce & Co	Seeds	22 00			
W. Rennie	do	46 89			
W. Carter	do	1 50			
Oakshott & Millard	do	634 83			
M. Hunter	do	45 58			
Arnold, Cheney & Co	do	7 10			
W. B. Holliday	do	9 00			
Express Co	Charges, on seeds	16 20			
G. T. Railway Co	Freight charges on seeds	36 50			
Collector Customs	Duty charges do	3 41			
P. Ryan	Manure, etc	16 00			
C. P. Railway Co	Freight charges on fertilizers	78			
G. T. Railway Co	do	35			
H. Metcalf	Furnishings	6 70			
J. M. Bond & Co	do	6 10			
E. & H. Ross	do	1 89			
A. Pigott	do	50			
G. B. Morris & Co	do	26 20			
James Gibson	Bags	2 80			
A. J. Little & Co	do	22 57			
R. Stewart	Lumber	23 20			
Ball & Gordon	Hardware	5 40			
G. A. Richardson	do	21 31			

G. B. Morris & Co	do	9 70			
do	Belting, tools, etc	68 62			
W. Sallows	Repairing implements, etc	10 63			
Russell & Richardson	do	1 25			
Advertiser Printing Co	Printing cards	3 00			
J. A. Nelles	do	4 05			
Innes & Davidson	Stationery, etc	31 13			
T. J. Day	do	14 12			
Guelph Post Office	Postage stamps	4 00			
A. McCallum	To pay for post office order	64			
Edy Bros	Photos of London exhibits	5 00			
C. W. Reynolds	Lettering signs *re* exhibits	11 20			
C. A. Zavitz	Travelling expenses *re* exhibit at London	79 46			
			2,257 89		
	EXPERIMENTAL DAIRY.				
Pay lists	Wages	756 19			
A. Parker	Teaming ice	3 20			
P. Lafferty	Packing ice	5 00			
T. P. Carter	Cutting ice	10 81			
Batchelor's Seed Store	Seed corn etc	7 35			
W. Rennie	do	1 50			
J. A. Bruce & Co	do	1 60			
Steele Bros. Co	do	16 68			
J. S. Pearce & Co	do	13 50			
J. Tanton	do	3 63			
W. W. Wolsey	do	12 00			
J. C. Vaughands	do	25 25			
Geo. Dudgeon	Seeds	2 05			
W. Carter	Fodder	232 73			
T. Davidson	do	2 35			
Express Co	Charges on seeds, etc	6 60			
A. Boyd	Superphosphates, etc	16 00			
C. P. R. Railway Co	Charges on superphosphates, etc	4 42			
J. Gibson	Gypsum	1 65.			
J. Short	Straw	4 00			
Jackson & Hallett	Salt	5 65			
Challenge Corn Planter Co	Corn planter	14 00			
G. T. Railway Co	Charges on corn planter	6 43			
J. W. Robertson	Duty charges do	5 70			
James Ryan	Horse	125 00			
M. Simmons	Pigs	43 00			
W. Laycock	do	10 00			
J. Simpson	do	74 55			
H. Husson	do	12 00			
W. Bishop	do	22 00			
A. McCallum	do	82 17			
Robt. Young	Cow	35 50			
	Carried forward	1,562 51	17,483 04	116,254 78	2,031,950 44

AGRICULTURE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	1,562 51	17,483 04	116,254 78	2,031,950 44
	EXPERIMENTAL FARM—*Continued.*				
	EXPERIMENTAL DAIRY—*Continued.*				
J. M. Geatz	Cow	34 00			
W. West	do	45 00			
A. McDonald	do	50 00			
W. Hinde	Cows	437 00			
Copp Bros.	Steamheater	26 00			
Toronto Engraving Co.	Electrotypes, silo	12 50			
W. Marshall	Photos	5 00			
J. M. Bond & Co	Scales	50 88			
J. Kerr	Cotton, etc	3 60			
N. Silver	do	2 10			
J. S. Pearce & Co.	Rennet tablets, etc.	3 56			
D. A. McPherson	do	3 00			
D. Derbyshire	do	3 55			
W. J. Young & Co	Butter trier, duty and express charges	5 88			
D. E. Rudd	Butter utensils	23 32			
W. Misketty	do	2 35			
A. B. Petrie	Thermometers	1 65			
S. & G. Penfold	Furnishings	58 35			
R. Stewart	Lumber	43 29			
J. M. Bond & Co.	Hardware	46 10			
G. B. Morris & Co.	do	1 18			
Tolton Bros	Tools, etc	9 03			
G. B. Morris & Co.	Paints, oils, etc	5 68			
G. Beattie	Harness, etc.	17 40			
J. S. Moffatt	Painting waggon, etc	4 50			
W. Sallows	Blacksmithing	4 00			
Guelph Gas Co	Gas, Laboratory	55 80			
W. G. McCandless	Fuel, do	10 60			
A. G. Smith & Co.	Chemicals do	8 55			
A. Boyd	do do	10 80			
R. Mitchell	Furnishings, Laboratory	35			
A. B. Petrie	do do	2 40			
Express Co.	Charges do	4 90			
G. T. Railway Co.	Freight charges do	1 06			

Collector Customs	Duty charges do	12 80			
Guelph Post Office	Postage stamps	40 62			
J. A. W. Robertson	do	11 80			
T. J. Day	Stationery	12 01			
Innes & Davidson	Printing	10 00			
G. N. W. Telegraph Co	Telegrams	7 05			
P. Spragge	Livery hire	3 60			
N. Moore	do	5 00			
J. W. Robertson	Travelling expenses	19 35			
do	do purchasing cattle	30 85			
O. G. Fairbairn	Services addressing envelopes	1 25			
A. McCallum	To pay sundries	3 20			
do	Accountable warrant, to purchase experimental cheese	394 82			
C. P. Railway Co	Freight charges do	15 89			
J. W. Robertson	Expenses, etc. do	28 57			
			3,152 10		
	GARDEN, LAWN, ETC.				
J. Forsyth	Services as gardener	524 97			
Pay lists	Wages of assistant gardeners, teamster, laborers, etc	1,809 67			
Sundry persons	Picking fruit	27 65			
P. Henderson	Seeds	10 83			
J. A. Bruce & Co	do	16 65			
G. Dudgeon	do	29 45			
J. Hewer	do	1 50			
T. Hammond	Plants	2 25			
Mrs. Johnston	do	4 30			
F. W. Stone	Trees	79 01			
Isaac Toscher	do	7 00			
G. Leslie & Sons	do	20 50			
J. Cadenhead	do	15 80			
G. T. Railway Co	Freight charges on trees	66			
F. Pinder	Tubs for plants	6 00			
P. Anderson	Baskets, etc	2 90			
G. Dudgeon	Bags	3 00			
J. Davis & Son	Flower pots	38 50			
G. T. Railway Co	Freight charges on flower pots	2 47			
Express Co	Charges on baskets	25			
P. Anderson	Manure	3 00			
R. H. Fielding	do	1 00			
W. T. Ward	do	75			
D. Reid	do	75			
H. Emery	do	75			
J. Doran	do	75			
P. Bothwick	do	49 50			
J. Hill	do	3 00			
J. Emery	do	1 50			
J. H. Reid	do	1 50			
	Carried forward	2,665 86	20,635 14	116,254 78	2,031,950 11

AGRICULTURE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Booought forward	2,665,86	20,635 14	116,254 78	2,031,950 44
	EXPERIMENTAL FARM—*Continued.*				
	GARDEN, LAWN, ETC.—*Continued.*				
F. H. Wilcocks	Straw	3 00			
J. Gibson	Salt	50			
G. Beattie	Furnishings	8 75			
E. R. Bollert	do	1 38			
A. B. Petrie	do	3 65			
R. Stewart	do	1 80			
J. M. Bond & Co	Hardware, etc	28 31			
H. Metcalf	Harness	10 00			
T. J. Day	Wall paper	19 20			
P. Wallace	Lime	50			
T. Anderson	Sand and lime	1 30			
W. Sallows	Tools, etc	1 25			
J. M. Bond & Co	do	10 22			
R. Pigott	do	9 00			
Tolton Bros	do	1 10			
Guelph Machine Co	do	19 28			
H. Metcalf	Plow	12 00			
Russell & Richardson	Lawn mower, etc	32 41			
Guelph Machine Co	Repairing lawn mower	1 70			
Gowdy Manufacturing Co	Repairing tools	1 00			
E. Stannard	Papering	8 84			
W. Sallows	Blacksmithing	4 12			
W. Benallick	Repairing chimneys, etc	9 75			
J. Redwood	do flues	174 39			
W. Smiley	do greenhouse, etc	16 25			
F. Sturdy	do do	5 04			
G. Howard	do gardener's house	1 80			
Kloepfer & Co	Fuel	21 42			
J. M. Bond & Co.	Coal oil	75			
T. J. Day	Stationery	6 25			
N. Moore	Use of horse	3 50			
J. Forsyth	Travelling expenses	11 70			
	INSTRUCTION.		3,096 02		
Pay lists	Salaries of officers	991 61			
do	Wages of instructor and cattleman	132 33			

Ball & Gordon	Hardware, etc	2 95			
G. B. Morris & Co	do	4 55			
R. Stewart	Lumber	19 64			
C. G. Mills	Furnishings	2 00			
G. A. Richardson	do	1 90			
J. M. Bond & Co	Tools	20 30			
G. A. Richardson	do	16 40			
Kloepfer & Co	Fuel	23 05			
			1,214 73		
	CREAMERY.				
A. Boyd	Butter cloth	4 00			
D. E. Rudd	Cream strainer, etc.	3 15			
Jackson & Hallett	Salt, etc	22 62			
R. Mitchell	Washing soda	10			
G. W. Smith & Co	Crocks	10			
Jas. Kerr	Fuel	10 60			
H. G. Cockburn	do	21 20			
J. M. Bond & Co	Furnishings	4 53			
J. C. Wallace	Repairing wagon	5 50			
Sundry persons	Cream supply	2,035 99			
F. Lynch	Allowance selling buttermilk	1 50			
J. McKenzie	Premium on butter	12 50			
Warwick & Sons	Printing	18 31			
Innes & Davidson	do	14 54			
Guelph *Herald*	Advertising	2 75			
Express Co	Charges	25			
G. N. W. Telegraph Co	Telegrams	4 55			
A. McCallum	To pay charges on drafts	2 55			
Pay lists	Buttermakers, etc	591 30			
			2,756 04		
	Less receipts—				
			27,701 93		
	Farm produce, exclusive of supplies to cottage	77 94			
	Garden, do do	79 20			
	Stock sold	1,650 80			
	Service of animals	111 00			
	Miscellaneous	53 07			
	Experimental Dairy	107 79			
	Creamery—				
	Butter	2,876 42			
	Buttermilk	212 91			
	Total Agriculture	3,089 33	5,169 13	22,532 80	138,787 58
	Carried forward				2,170 738 02

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward				2,170,738 02
	HOSPITALS AND CHARITIES.				
The Treasurer—					
General Hospital, Toronto	Legislative grant			22,832 44	
City Hospital, Hamilton	do			6,486 90	
General Hospital, Kingston	do			4,318 95	
Hotel Dieu Hospital, Kingston	do			2,251 22	
General Protestant Hospital, Ottawa	do			4,504 90	
Roman Catholic Hospital, Ottawa	do			5,566 23	
House of Mercy Lying-in Hospital, Ottawa	do			1,914 82	
General Hospital, London	do			4,918 57	
General and Marine Hospital, St. Catharines	do			1,949 47	
General Hospital, Guelph	do			3,048 42	
St. Joseph's Hospital, Guelph	do			2,323 54	
General Hospital, Pembroke	do			1,053 30	
General Hospital, Mattawa	do			1,231 20	
John H. Stratford Hospital, Brantford	do			2,319 81	
St. Joseph's Hospital, Port Arthur	do			1,231 75	
Belleville Hospital, Belleville	do			1,065 18	
St. Vincent de Paul Hospital, Brockville	do			277 80	

House of Industry, Toronto	do				1,760 36	
House of Providence, Toronto	do				9,835 21	
Home for Incurables, Toronto	do				3,940 20	
Aged Women's Home, Toronto	do				417 97	
St. John's Hospital, Toronto	do				506 70	
Convalescent Home, Toronto	do				443 70	
The Church Home, Toronto	do				292 53	
House of Refuge, Hamilton	do				2,550 17	
Home for Aged Women, Hamilton	do				530 11	
House of Industry, Kingston	do				1,170 26	
House of Providence, Kingston	do				1,524 18	
Home for Aged and Friendless, London	do				146 93	
Roman Catholic House of Refuge, London	do				1,070 30	
Home for Aged Women, London	do				311 85	
St. Patrick's House of Refuge, Ottawa	do				2,867 41	
St. Charles Hospice, Ottawa	do				2,036 65	
Home for the Aged, Ottawa	do				403 41	
Orphans' Home (Refuge Br.), Ottawa	do				278 46	
House of Providence, Guelph	do				1,064 56	
Protestant Home (Refuge Br.), St. Catharines	do				76 64	
The Thomas Williams' Home, St. Thomas	do				469 35	
House of Providence, Dundas	do				2,223 90	
Home for the Friendless, Chatham	do				334 60	
Widows' Home, Brantford	do				314 09	
Carried forward					101,864 04	2,170,738 02

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward			101,864 04	2,170,738 02
The Treasurer—	HOSPITALS AND CHARITIES—*Continued.*				
Home for the Friendless, Belleville	Legislative grant			238 21	
Protestant Home, Peterboro'	do			402 85	
Roman Catholic Orphan Asylum, Toronto	do			2,059 24	
Protest'nt Orphans' Home, Toronto	do			1,346 20	
Girls' Home, Toronto	do			644 76	
Boys' Home, Toronto	do			769 88	
Newsboys' Lodgings, Toronto	do			126 74	
Infants' Home and Infirmary, Toronto	do			1,628 68	
St. Nicholas Home, Toronto	do			378 00	
Hospital for Sick Children, Toronto	do			2,354 22	
St. Mary's Orphan Asylum, Hamilton	do			1,089 56	
Orpham Asylum, Hamilton	do			207 38	
Boys' Home, Hamilton	do			561 14	
Girls' Home, Hamilton	do			397 08	
Home for Friendless, Hamilton	do			440 17	
Orphans' Home, Kingston	do			423 76	
House of Providence Orphan Asylum, Kingston	do			213 32	
Hotel Dieu Orphan Asylum, Kingston	do			251 14	
Orphans' Home, Ottawa	do			267 30	
St. Patrick's Orphan Asylum, Ottawa	do			419 66	
St. Joseph's Orphan Asylum, Ottawa	do			913 34	

Roman Catholic Orphan's Home, London	do			572 90	
Protestant Orphan's Home London	do			407 10	
Women's Refuge and Infants' Home, London	do			291 82	
Protestant Home, (orphanage branch) St. Catharines.	do			126 76	
Orphan Asylum, St. Agatha	do			287 20	
The Thomas Williams Home (orphanage branch) St. Thomas	do			2 48	
Orphan Asylum, Fort William	do			273 86	
Industrial Refuge, Toronto	do			183 88	
Good Shepherd Refuge for Fallen Women, Toronto.	do			361 38	
Good Shepherd Magdalen Asylum, Ottawa	do			724 60	
Warwick & Sons	Printing and binding			93 45	
H. J. Emerson	Services and expenses as stenographer *re* General Hospital, St. Catharines.			65 30	
J. Notman	Paper do do			15 08	
	Total Hospitals and Charities				120,402 48

REPAIRS AND MAINTENANCE—GOVERNMENT AND DEPARTMENTAL BUILDINGS.

GOVERNMENT HOUSE.

Consumers' Gas Co	Gas	614 27			
R. Irvine	Coal oil	6 00			
Water Works Department	Water	654 31			
Knickerbocker Ice Co	Ice	76 00			
Conger Coal Co	Fuel	1,481 75			
			2,832 33		
Pay Lists	Wages of carpenters, bricklayers, laborers, etc	588 04			
Joseph Murphy	Plastering, etc	195 40			
George Evans	Tinsmithing, etc	582 65			
T. Lalor	Locksmithing	54 30			
	Carried forward	1,420 39	2,832 33		2,291,140 50

REPAIRS AND MAINTENANCE—GOVERNMENT AND DEPARTMENTAL BUILDINGS—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	1,420 39	2,832 33		2,291,140 50
	GOVERNMENT HOUSE—*Continued.*				
W. Milligan	Painting, glazing, etc.	639 02			
J. and J. L. O'Malley	Upholstering, etc.	268 27			
J. Fensom	Repairing elevator	21 55			
W. J. McGuire	Testing plumbing	24 50			
Darling & Currey	Inspecting and reporting on plumbing	20 00			
			2,393 73		
J. B. Smith & Sons	Lumber	115 75			
P. Paterson & Son	Hardware	5 05			
J. & A. Bertram	do	21 36			
Rosebrugh, Sons & Co.	do	17 85			
R. Carroll	Cement, etc	5 77			
J. Ritchie	Castings, firebrick, etc.	228 35			
Keith & Fitzsimons	Castings, etc.	105 52			
Rice Lewis & Son	do	124 67			
E. C. Gurney Co	do	36 00			
			660 32		
do	Boiler, etc	254 70			
J. Morrison	Copper tank	30 50			
J. Ritchie	Gasfittings	27 75			
Hon. J. B. Robinson	Fountain for grounds	200 00			
Roberts & Son	Picture frames, etc.	68 25			
F. A. T. Dunbar	Bust of Queen Victoria	600 00			
Express Co	Charges on do	4 60			
Estate Glover Harrison	Glassware	53 85			
J. Adams	Flags, etc	24 47			
			1,264 12		
J. A. Simmers	Seeds, plants, etc.	239 15			
J. Cleary	Sodding and gravel	9 50			
Toronto Rubber Co	Hose, etc	374 40			
J. A. Simmers	Lawn mower	24 00			
M. J. Doran	Fertilizer	44 00			
			691 05		
H. Williams	Cleaning carpets	5 45			
D. W. Smith	Cleaning curtains	44 10			
P. Burt	Clearing snow from walks	75 00			
G. Duthie & Sons	Clearing snow from roofs	34 00			

W. R. Dossor	Cleaning chimneys	15 00			
S. W. Marchmont & Co	Cleaning closets	5 00			
V. P. Fayle	Expenses, weighing coal	8 00			
			186 55		
J. Ryan	Cartage	82 50			
Rose Cartage Co	do	1 66			
			84 16		
Sundry newspapers	Advertising *re* fuel		30 00		
				8,142 26	
	PARLIAMENT BUILDINGS.				
	MAIN BUILDINGS.				
Consumers' Gas Co	Gas	1,225 69			
Water Works Department	Water	563 25			
C. Burns	Ice	132 00			
Conger Coal Co	Fuel	1,315 93			
			3,236 87		
Pay lists	Wages of carpenters, bricklayers, laborers, etc	773 39			
Wm. Milligan	Painting, glazing, etc	612 19			
T. Lalor	Locksmithing	82 90			
Geo. Evans	Tinsmithing, etc	1,013 97			
J. & J. L. O'Malley	Upholstering	354 33			
B. A. Dyeing Co	Dyeing curtains	9 20			
J. Ritchie	Plumbing, etc	424 32			
Jos. Murphy	Limewhiting	64 90			
D. Foster	Repairing roofs	52 25			
R. Sheppard	Repairing mantle	1 95			
National Mfg. Co	Repairing flags	10 50			
			3,399 90		
P. Paterson & Son	Hardware	22 73			
Aitkenhead & Crombie	do	14 45			
J. & A. Bertram	do	77 99			
J. B. Smith & Sons	Lumber	32 90			
E. Merritt	Wall paper	4 80			
Keith & Fitzsimons	Castings, etc	185 40			
Rice Lewis & Son	do	720 92			
E. & C. Gurney Co	do	5 10			
Jas. Morrison	do	156 86			
			1,221 15		
C. Rogers & Sons Co	Furniture	340 95			
Wm. Petley	Furnishings	299 42			
John Kay Son & Co	do	212 09			
J. Catto & Co	do	227 12			
E. Hooper & Co	do	66 95			
Glover Harrison estate	do	350 47			
H. A. Nelson & Sons	do	162 94			
	Carried forward	1,659 94	7,857 92	8,142 26	2,291,140 50

13 (P. A.)

213

REPAIRS AND MAINTENANCE—GOVERNMENT AND DEPARTMENTAL BUILDINGS—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	1,659 94	7,857 92	8,142 26	2,291,140 50
	PARLIAMENT BUILDINGS—*Continued.*				
	MAIN BUILDING—*Continued.*				
J. Berwick & Co	Furnishings	45 80			
Keith & Fitzsimons	Gas fittings, etc	41 98			
J. Ritchie	do	142 48			
			1,890 20		
E. & C. Gurney Co	Furnaces, etc	402 36			
J. Notman	Wrapping paper	35 13			
J. Bruce	Photo of Legislature	165 00			
Roberts & Son	Loan of pictures	21 30			
Rolph Smith & Co	Engraving	19 20			
Toronto Rubber Co	Hose, etc	8 60			
			651 59		
G. Duthie & Sons	Clearing snow from roofs	16 68			
J. Malloy	do sidewalks	26 64			
D. Kannan	Cleaning ashpit	13 00			
J. Cowan	do chimneys	5 16			
E. J. Edwards	do carpets, etc	7 31			
Pay lists	Wages of dusters, etc	1,125 88			
			1,194 67		
J. Ryan	Cartage	13 50			
Rose Cartage Co	do	23 92			
			37 42		
C. W. Coleman	Care of clocks		85 00		
Sundry newspapers	Advertising, *re* fuel		18 50		
				11,735 30	
	WEST WING.				
Conger Coal Co	Fuel	775 08			
Fox & Co	do	3 00			
Water Works Department	Water	563 25			
W. A. Bradshaw	Coal oil, etc	13 83			
D. Bradshaw	do	19 50			
			1,374 66		

Pay lists	Wages of carpenters, bricklayers, labourers, etc	704 79			
Joseph Murphy	Plastering, etc	9 30			
W. Milligan	Painting, glazing, etc	41 99			
T. Lalor	Locksmithing	32 55			
W. J. Whitten & Co	Tinsmithing, etc	71 53			
Geo. Evans	do	9 35			
Keith & Fitzsimons	Plumbing	19 50			
J. Ritchie	do	26 56			
D. Forbes	Repairing roofs	117 59			
G. Duthie & Sons	do	151 36			
C. Carnegie	Repairing clocks	3 00			
			1,187 52		
G F. Bostwick	Filing cabinet	100 00			
C. Rogers & Sons Co	Furniture, etc	135 10			
J. Kay, Son & Co	Carpets, etc	230 28			
W. H. Sparrow	Deed chests, etc	15 05			
D. Pike	Awnings	16 50			
Powell & Parkinson	Marble slabs	39 85			
E. & C. Gurney Co	Lamp	15 00			
J. Edgar & Son	Furnishings	2 75			
J. Mann	do	2 00			
W. H. Sparrow	do	4 10			
D. Bradshaw	do	8 30			
A. J. Aird & Co	do	2 00			
			570 93		
J. Bradshaw	Dusting and cleaning offices	203 90			
Mrs. Wilson	do	2 50			
G. Duthie & Sons	Clearing snow from roofs	16 66			
J. Malloy	do walks	46 64			
J. Cowan	Cleaning chimneys	10 41			
W. Berry	do closets	12 00			
R. Coutts	do and laying carpets	2 00			
			294 11		
Sundry newspapers	Advertising, *re* fuel		10 00		
				3,437 22	
	EAST WING.				
Consumers' Gas Co	Gas	186 42			
C. Burns	Ice	56 00			
Waterworks Department	Water	563 25			
Conger Coal Co	Fuel	355 59			
			1,161 26		
Pay lists	Wages of carpenters, bricklayers, labourers, etc	770 96			
J. Murphy	Limewhiting	5 80			
W. Milligan	Painting, glazing, papering, etc	640 89			
Wheeler & Bain	Tinsmithing, etc	218 13			
Geo. Evans	do	54 31			
T. Lalor	Locksmithing	53 55			
	Carried forward	1,743 64	1,161 26	23,314 78	2,291,140 50

REPAIRS AND MAINTENANCE—GOVERNMENT AND DEPARTMENTAL BUILDINGS—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	1,743 64	1,161 26	23,314 78	2,291,140 50
	PARLIAMENT BUILDINGS—*Continued.*				
	EAST WING—*Continued.*				
Keith & Fitzsimons	Plumbing, etc	32 62			
D. Forbes	Repairing roofs	38 75			
J. & J. Taylor	do safe	1 00			
C. W. Coleman	do clocks	5 00			
C. Wilson & Son	do and testing scale	10 25			
			1,831 26		
J. B. Smith & Sons	Lumber	140 29			
W. Cottrell & Son	Hardware, etc	1 60			
Rosebrugh, Sons & Co	do	35 42			
			177 31		
C. Rogers & Sons Co	Furniture	60 50			
King & Yorston	do	23 00			
Office Specialty Co.	Filing cabinet	200 00			
J. B. Smith & Sons	Filing cupboard	35 10			
Geo. Bengough	Typewriter cabinet	26 00			
J. Kay, Son & Co	Linoleum, etc	38 61			
R. Walker & Sons	Carpet	105 47			
Eby, Blain & Co	Furnishings	63 90			
Hughes Bros'. Estate	do	25 75			
W. H. Sparrow	do	6 50			
I. A. Whatmough	do	12 00			
A. McDonell	do	10 00			
J. D. Mathison	do	2 75			
J. Berwick & Co	do	70			
Geo. Evans	Deed chests	50 00			
J. Bruce	Photos and frame	7 50			
J. G. Ramsey	Picture frame	1 25			
F. Yeigh	Weather strips	1 50			
			670 56		
A. McDonell	Office cleaning	331 25			
Mrs. Newman	Scrubbing offices	3 00			
Mrs. Coffee	do	2 25			
Mrs. Hanaghan	do	8 90			
Mrs. Heegan	do	2 00			

J. Ryan	Dusting and cleaning vault	35 00			
E. J. Edwards	Cleaning carpets	4 50			
T. Lambe	do	10 00			
G. Duthie & Sons	Clearing snow from roofs	16 66			
J. Malloy	do walks	46 72			
J. Cowan	Cleaning chimneys	5 18			
			465 46		
J. Ryan	Cartage		50 45		
C. W. Coleman	Care of clocks		24 00		
J. Ryan	Services as acting fireman		10 50		
Sundry newspapers	Advertising *re* fuel		10 00		
				4,400 80	
	EDUCATIONAL BUILDINGS.				
Consumers' Gas Co	Gas	275 29			
Toronto Electric Light Co	Lighting	27 00			
Waterworks Department	Water	987 48			
Knickerbocker Ice Co	Ice	12 50			
Conger Coal Co	Fuel	3,303 84			
			4,606 11		
Pay lists	Wages of carpenters, bricklayers, labourers, etc	1,142 84			
W. J. McCleary	Services as carpenter	600 00			
J. Teevin	Repairing furnace rod	2 25			
J. Milne & Co	do awnings, etc	13 50			
J. Sharpe	do and modelling walls	85 55			
Northy & Co	do pump	10 00			
J. Gillies	Removing engine to new building	21 35			
C. Shipway	Locksmithing	6 75			
J. & E. H. Roberts	do	2 35			
T. L. Hicks	do	16 00			
T. Lalor	do	1 00			
Shipway Manufacturing Co	do	16 00			
J. Wright	Plumbing	245 20			
Geo. Evans	Tinsmithing etc	5 70			
M. O'Connor	Painting, glazing, etc	182 35			
R. J. Stanley	do	116 35			
			2,467 19		
Hillock & Kent	Lumber	2 05			
Gall, Anderson & Co	do	169 17			
J. B. Smith & Sons	do	101 11			
J. Pearsall	Hardware	4 35			
M. J. L. Vokes	do	30			
J. & A. Bertram	do	118 84			
R. Carroll	Cement, pipe, etc	232 12			
Rice Lewis & Son	Castings, etc	67 33			
J. Ritchie	do	7 53			
Keith & Fitzsimons	do	18 29			
A. T. Scott	do	5 25			
			726 34		
	Carried forward		7,799 64	27,715 58	2,291,110 50

REPAIRS AND MAINTENANCE—GOVERNMENT AND DEPARTMENTAL BUILDINGS—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		7,799 61	27,715 58	2,291,140 50
	EDUCATIONAL BUILDINGS—*Continued.*				
C. Rogers & Sons Co	Furniture	36 00			
Selby & Co	do	30 00			
G. F. Bostwick	do	2 53			
Bennett Furnishing Co	do	101 00			
J. Macdonald & Co	Carpet, etc	55 40			
McMaster, Darling & Co	Mats and rugs	132 63			
McMaster & Co	Felt paper	3 50			
Copp, Clark Co	Furnishings	16 00			
J. Sinclair & Son	do	48 00			
T. Eaton & Co	do	9 88			
R. Simpson	do	2 98			
E. H. Dent	do	7 76			
Brown Bros	do	4 80			
E. Field	do	85			
T. G. Rice	Wire fence	30 00			
B. Greening & Co	Wire mats	23 40			
Toronto Gas Stove Co	Gas stove and fittings	33 71			
Map and School Supply Co	Liquid slating	3 33			
J. H. Pendrith	Grating and sash weights	14 90			
S. H. Howard	Gaslighter	1 50			
Kent Bros	Dials for clocks	7 50			
T. Sharpe	Brackets	15 00			
M. Foley	Cushions	6 00			
E. Potts	Picture frames, etc	121 30			
H. P. Davies & Co	Parallel bars and Indian clubs	45 00			
			752 97		
R. Gilpin	Supplies *re* cleaning	62 50			
J. Abraham	do	62 50			
T. Williamson	do	62 50			
L. McCorkindale	do	50 00			
G. Duthie & Sons	Clearing snow from roofs	30 00			
			267 50		
P. Henderson & Co	Seeds	2 64			
Steele Bros. Co	do	16 43			
Manton Bros	Flowers	5 00			
Stone & Wellington	Trees	30 00			

Freeman & Watson	Transplanting trees	30 00			
Keith & Fitzsimons	Hose, etc	13 07			
Toronto Rubber Co	do	15 45			
Canada Rubber Co	do	11 40			
W. Rennie	Lawn mowers	28 80			
J. A. Simmers	Flower pot covers	50			
P. Falvey	Manure, etc	79 50			
M. J. Doran	Fertiliser	16 00			
Shedden Co	Freight charges on fertiliser	1 68			
J. Clarey	Sodding	27 45			
J. Adamson	Gravel	12 00			
T. Morrison	Repairing sprinkler	1 50			
			291 42		
T. Williamson	Washing towels *re* Kindergarten	24 00			
Mrs. Thompson	Scrubbing do	1 00			
Mason & Risch	Tuning pianos do	5 00			
			30 00		
J. Priestly	Services as night fireman	64 00			
Kent Bros	Care of clocks	120 00			
Mason & Risch	Tuning piano	6 00			
			190 00		
O. Cosgrove	Cartage	65 00			
A. E. Fisher	do	15 50			
J. Ryan	do	15 00			
Rose Cartage Co	do	25 22			
			120 72		
H. M. Wilkinson	To pay sundries		6 10		
Sundry newspapers	Advertising *re* fuel		40 00		
				9,498 35	
	SIMCOE STREET PREMISES.				
Consumers' Gas Co	Gas	31 03			
Mrs. Crawford	Rent	1,200 00			
Conger Coal Co	Fuel	347 23			
Water Works Department	Water	11 00			
Knickerbocker Ice Co	Ice	14 75			
			1,631 01		
Pay lists	Wages of carpenters, bricklayers, laborers, etc	68 70			
Joseph Murphy	Limewhiting	33 25			
W. Milligan	Painting, glazing, etc	417 53			
Geo. Evans	Stove, tinsmithing, etc	220 89			
T. Lalor	Locksmithing	17 40			
J. Ritchie	Plumbing	5 25			
Keith & Fitzsimons	do	3 00			
			766 02		
J. B. Smith & Sons	Lumber	5 94			
King & Yorston	Furniture	15 00			
W. M. Milligan	Furnishings	12 05			
	Carried forward	32 99	2,400 03	37,213 93	2,291,140 50

REPAIRS AND MAINTENANCE—GOVERNMENT AND DEPARTMENTAL BUILDINGS—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	32 99	2,400 03	37,213 93	2,291,140 50
	SIMCOE STREET PREMISES—*Continued.*				
T. Eaton & Co	Furnishings	2 60			
J. Kay, Son & Co	Linoleum	13 56			
J. & J. L. O'Malley	Upholstering	16 50			
Hooper & Co	Chemicals	1 25			
J. Bruce	Photo, Parliamentary group	7 50			
			74 40		
Mrs. Chase	Office cleaning	318 00			
T. Y. Hopkins	Cleaning chimneys	5 10			
C. W. Coleman	Care of clocks	10 50			
H. Clarke	Cutting wood	36 00			
			369 60		
Sundry newspapers	Advertising *re* fuel		3 00		
				2,847 03	
	WELLINGTON STREET PREMISES.				
Consumers' Gas Co	Gas	108 69			
Dr. J. Thorburn	Rent	600 00			
Conger Coal Co	Fuel	185 70			
Water-works Department	Water	29 00			
Knickerbocker Ice Co	Ice	15 13			
			938 52		
R. Jones	Bricklaying	6 00			
J. Aylward	Laboring	3 30			
J. Murphy	Lime whiting	1 25			
G. Evans	Tinsmithing, etc	91 25			
T. Lalor	Locksmithing	9 65			
W. Milligan	Painting, glazing, etc	54 10			
			165 55		
E. & C. Gurney Co	Repairing furnace, range etc	59 50			
Keith & Fitzsimons	Castings, etc	7 38			
P. Paterson & Son	Hardware	3 15			
Toronto Rubber Co	Hose, etc	19 50			
			89 53		
Schlicht & Field Co	Filing cabinet	79 55			
do	Deed chests	72 00			

W. Beatty & Son	Furnishings	1 87		
W. Cottrell & Son	do	4 55		
I. A. Whatmough	do	5 15		
E. E. Widdifield	do	1 75		
J. Berwick & Co	do	13 20		
Roberts & Son	Draughtsman's supplies	20 00		
			198 07	
Mrs. McDonald	Office cleaning	216 66		
J. W. Featherston	Clearing snow from walks	15 00		
C. Moore	Cleaning chimneys	1 45		
W. Wharin	Cleaning clock	50		
C. W. Coleman	Care of clocks	7 50		
			241 11	
Sundry newspapers	Advertising *re* fuel		3 00	
				1,635 78
	MISCELLANEOUS.			
F. P. O'Callaghan	Eight months' salary as General Clerk of Works		800 00	
B. O. Byrne	Three and one-half do do		350 00	
S. Cleary	Twelve do Carpenter		720 00	
W. Higgin	Ten do Plumber		719 00	
M. McBrearty	Two do do		143 00	
M. Quinn	Twelve do do Assistant		312 00	
				3,044 00
	NORMAL SCHOOL, OTTAWA.			
City of Ottawa	Water	217 34		
do	Clearing snow	11 60		
Ottawa Gas Co	Gas	33 20		
J. Heney	Fuel	245 50		
C. C. Ray & Co	do	1,157 29		
			1,664 93	
J. McLaren & Co	Lumber	4 44		
J. Lavalley	Sand	2 00		
Stephens Bros	Varnish, oil, etc	21 18		
			27 62	
Butterworth & Co	Furnishings	71 80		
J. Hope & Co	do	12 34		
C. S. Shaw & Co	do	2 00		
			86 14	
H. R. Macdonald	Supplies *re* cleaning	25 00		
O. Macdonald	do	62 50		
J. McGrath	do	25 00		
J. Urquhart	do	25 00		
J. McKay	do	12 50		
J. De Laire	do	37 50		
			187 50	
	Carried forward		1,966 19	44,740 74

REPAIRS AND MAINTENANCE—GOVERNMENT AND DEPARTMENTAL BUILDINGS—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		1,966 19	44,470 74	2,291,140 50
	NORMAL SCHOOL, OTTAWA—*Continued.*				
Steele Bros. Co	Seeds	11 40			
do	Plants	12 43			
A. Hickey	do	2 40			
Brown Bros	Fruit trees	20 80			
T. E. Cowan	Trees and shrubs	10 90			
A. La. Combe	do	17 50			
J. Holt	Manure	2 50			
			77 93		
J. White	Clearing snow from roofs	325 50			
do	Repairing roofs	178 96			
do	do furnaces	78 95			
do	Plastering	97 40			
do	Bricklaying	60 90			
do	Sodding	31 50			
do	Carpentering	229 80			
do	Sheeting and painting ceiling	198 00			
			1,204 01		
H. J. Hubertus	Inspecting and removing gas metre		1 25		
D. Goyer	Care of clocks		60 00		
J. A. MacCabe	To pay sundries		1 15		
Cobourg *World*	Advertising *re* fuel		7 60		
				3,318 13	
	SCHOOL OF PRACTICAL SCIENCE.				
Consumers' Gas Co	Gas	132 66			
J. Sinclair & Son	Coal oil, etc	17 45			
Water Works Dep't	Water	14 79			
Comper Coal Co.	Fuel	467 98			
			632 88		
Pay lists	Wages of carpenters, bricklayers, laborers, etc.	118 50			
J. Murphy	Plastering	34 50			
Geo. Evans	Tinsmithing, etc	14 60			
Keith & Fitzsimons	Plumbing, etc	73 95			
J. Ritchie	do	14 00			

G. Pearsall	Repairing lawn mower	2 60			
E. & C. Gurney Co	do furnace	3 70			
			261 85		
P. Paterson & Son	Hardware	4 50			
J. & A. Bertram	do	94 76			
Rice Lewis & Son	Castings, etc	60 33			
J. Morrison	do	13 85			
Toronto Rubber Co	Hose	15 45			
R. Carroll	Pipe	3 49			
Rice Lewis & Son	Barbed wire, etc	21 38			
J. Sinclair & Son	Furnishings	45 15			
			258 91		
Mrs. Graham	Washing towels		8 75		
Rose Cartage Co	Cartage		4 50		
Sundry newspapers	Advertising re fuel		15 80		
				1,182 69	
	AGRICULTURAL COLLEGE.				
Guelph Gas Co	Gas	797 20			
Guelph Water Works	Water	650 00			
J. M. Bond & Co	Coal oil	7 58			
S. Rogers & Co	do	5 00			
Kloepfer & Co	Fuel	2,849 59			
			4,309 37		
Ball & Gordon	Hardware	28 29			
Harvey & Co	do	37 34			
C. Kloepfer	do	50			
G. B. Morris & Co	do	44 70			
J. M. Bond & Co	do	82 18			
W. Sallows	Ironwork, etc	20 05			
J. Morrison	Castings, etc	26 22			
Griffin & Grundy	do	26 24			
W. Sunley	do	6 55			
Walker & Maloney	do	10 15			
Keith & Fitzsimons	do	24 60			
R. Stewart	Lumber	10 42			
R. Maloney	do	20 97			
Benallick & Foster	Cement, sand, etc	34 50			
C. G. Mills	Chimney stack	8 75			
			381 76		
J. S. Moffat	Painting, glazing, etc	51 25			
F. Sturdy	do	4 00			
J. Goss	do	6 82			
E. H. Pass	do	59 81			
Geo. Howard	Tinsmithing, etc	33 15			
W. Sunley	do	2 85			
W. B. Kerr	do	8 98			
A. Mills	do	38 15			
	Carried forward	205 01	4,691 13	49,241 56	2,291,140 50

REPAIRS AND MAINTENANCE—GOVERNMENT AND DEPARTMENTAL BUILDINGS—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward ...	205 01	4,691 13	49,241 56	2,291,140 50
	AGRICULTURAL COLLEGE—*Continued.*				
H. Harper	Locksmithing	3 75			
J. J. Maloney	Plastering, etc	21 67			
G. B. Stewart	Whitewashing	59 40			
J. Bruce & Son	Carpentering	35 00			
Keith & Fitzsimons	Repairing steam gauge	3 25			
H. G. Penfold	do vehicles	3 50			
G. Howard	do roof	34 20			
J. A. Tovell	do robes	9 25			
G. D. Pringle	do clock	2 00			
			377 03		
F. B. Skinner & Co	Furniture	10 00			
W. J. Joyce & Co	do	81 50			
W. Grigg	do	6 00			
Bennet Furnishing Co	do	9 50			
Burr Bros	do	31 20			
C. W. Reynolds	Plate glass	5 00			
Burr Bros	Mirrors, etc	13 25			
Geo. Bengough	Typewriter stand	5 00			
R. Mitchell	Furnishings	90			
A. J. Little & Co	do	15 75			
Waters Bros	do	14 65			
J. Gordon	do	30			
W. H. Hans	do	1 75			
F. Dowler	do	8 51			
J. S. Rogerson	do	1 04			
W. J. Joyce & Co	do	9 50			
J. G. McKergow	do	1 30			
W. G. Smith & Co	do	3 35			
Mrs. Martin	do	9 75			
Burr Bros	do	1 48			
E. R. Bollert	do	2 50			
Brown Bros	do	3 05			
F. Dowler	do	20			
B. Savage	do	4 50			
R. Mitchell	Crockery	30 65			
J. Edgar & Son	do	18 35			
Geo. Williams	do	3 38			
J. E. McElderry	do	1 78			

Watson Bros	do	18 27			
H. Loch	do	20 45			
G. D. Pringle	Glassware	5 25			
T. J. Day	Wall paper, etc	54 11			
J. A. Nelles	do	4 09			
Russell & Richardson	Lawn mower	9 28			
Geo. Beattie	Harness	42 00			
Chas. Baker	Microscopes	100 02			
The Rathbun Co	Cedar oil, etc	11 50			
S. Rogers & Co	Boiler compound	5 00			
			564 44		
G. R. Ryan & Co	Carpets, etc	105 66			
E. R. Bollert	Quilts, etc	18 62			
			124 28		
W. J. Laker	Laying carpets	1 75			
Thos. Bone	Paper hanging	2 45			
J. Hohenadel	Cleaning closets	11 00			
			15 20		
G. T. Railway Co	Freight charges	10 70			
Express Co	Charges	3 10			
			13 80		
J. A. Angell	Travelling expenses		3 50		
				5,789 38	
	AGRICULTURAL HALL.				
Consumers' Gas Co	Gas	22 23			
Conger Coal Co	Fuel	239 46			
Knickerbocker Ice Co	Ice	9 40			
			281 09		
W. Milligan	Painting	2 00			
G. Booth & Son	do	30 00			
J. Murphy	Carpentering	9 00			
W. J. McGuire & Co	Plumbing, etc	43 95			
Keith, & Fitzsimons	do	1 10			
P. H. Bryce	To pay locksmithing	50			
			86 55		
J. B. Smith & Sons	Lumber	8 21			
Aikenhead & Crombie	Rope	1 28			
			9 52		
C. Rogers & Sons Co	Furniture	26 05			
G. F. Bostwick	do	91 35			
J. Hathaway	do	40			
King & Yorston	do	9 00			
J. Milne & Co	Pail	1 50			
N. L. Piper & Son	Filter	12 00			
G. F. Sproule	Picture frames	3 50			
S. J. Dixon	Photo of graduating class	5 38			
W. B. Varley	Furnishings	2 35			
Rice Lewis & Son	do	3 01			
			154 54		
	Carried forward		531 70	55,030 94	2,291,140 50

REPAIRS AND MAINTENANCE—GOVERNMENT AND DEPARTMENTAL BUILDINGS—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		531 70	55,030 94	2,291,140 50
	AGRICULTURAL HALL—*Continued.*				
Mrs. Jones	Cleaning and dusting offices	203 40			
T. Lynch	Washing towels	18 50			
			221 90		
W. T. Stewart	Gravel for filtering		6 50		
A. Blue	To pay sundries		75		
J. Ryan	Cartage		44 00		
Sundry newspapers	Advertising *re* fuel		3 00		
			807 85		
	Less amount received on account of heating		200 00		
				607 85	
	OSGOODE HALL.				
Consumers' Gas Co	Gas	502 50			
J. Wilson	Coal oil	8 60			
Water Works Department	Water	697 55			
Knickerbocker Ice Co	Ice	42 00			
Conger Coal Co	Fuel	3,293 93			
			4,544 58		
Geo. York	Services as engineer	660 00			
C. Sendell	do fireman	360 00			
F. Cleary	do night fireman	120 00			
Pay lists	Wages of carpenters, bricklayers, laborers, etc	807 70			
J. Murphy	Plastering, etc	89 10			
T. Lalor	Locksmithing	48 70			
T. L. Hicks	do	3 50			
Geo. Evans	Tinsmithing	341 50			
M. O'Connor	Painting, glazing, etc	106 55			
J. Ritchie	Plumbing, etc	86 55			
Keith, & Fitzsimons	do	10 20			
Schlicht & Field Co	Repairing furniture	42 50			
J. Inglis & Son	do boiler	3 50			
D. Forbes	do roofs	407 72			
G. Duthie & Sons	do do	41 80			
			3,129 32		
M. & L. Vokes	Hardware	1 25			
Rosebrugh Sons & Co	do	20 87			

P. Paterson & Son	do	22 86			
J. A. Bertram	do	28 94			
Rice Lewis & Son	do	1 75			
J. Ritchie	Castings	64 90			
Rice Lewis & Son	do	33 02			
Keith & Fitzsimons	do	128 84			
J. B. Smith & Sons	Lumber	69 06			
Carroll	Cement, sand, etc.	65 85			
			437 34		
J. & J. L. O'Malley	Furniture, etc	11 50			
T. Clarkson	Furnishings	14 45			
E. Hooper & Co	do	2 00			
J. Catto & Co	do	12 44			
J. Sinclair & Son	do	19 05			
J. T. Wilson	do	10 48			
W. Beatty & Son	do	7 00			
Marshland & Kennedy	do	1 75			
T. H. Botham	do	11 50			
C. S. Botsford	Mats	13 00			
W. H. Sparrow	Filter	11 00			
J. G. Rice	Fire guards	8 75			
Keith & Fitzsimons	Gasfittings	13 00			
J. B. Smith & Sons	Storm sashes	33 00			
			168 92		
M. O'Connor	Cleaning windows	210 50			
D. W. Sutherland	Office cleaning and supplies	74 40			
Mrs. Sutherland	do do	83 00			
Janet Smith	Scrubbing and cleaning	161 20			
C. Clarke	Cleaning ashpits	1 65			
T. Aird	do	4 50			
D. O'Callaghan	do	4 95			
A. McGregor	do	1 65			
J. Mulligan	do	1 65			
T. Y. Hopkins	Cleaning chimneys	9 90			
G. Duthie & Sons	Clearing snow from roofs	38 00			
			591 40		
J. E. Ellis & Co	Care of clocks	15 00			
W. Alexander	do	30 00			
			45 00		
Rose Cartage Co	Cartage	1 75			
M. T. Stewart	do	1 00			
J. Ryan	do	106 50			
			109 25		
V. P. Fayle	Expenses, weighing coal		15 00		
Sundry newspapers	Advertising *re* fuel		53 00		
				9,093 81	
	Total Repairs and Maintenance				64,732 60
	Carried forward				2,355,873 10

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward				2,355,873 10
	PUBLIC BUILDINGS.				
	ASYLUM FOR INSANE, TORONTO.				
G. Duthie & Sons	On account contract, repairs to roof	782 21			
M. O'Connor	Papering	111 69			
D. Lamb	Laboring	9 90			
			903 80		
	FURNITURE AND FURNISHINGS.				
Tennant & Co.	Lumber	392 09			
Gall, Anderson & Co.	do	329 85			
Withrow & Hillock	Window sashes, etc.	342 50			
W. Thomson & Co.	Hardware, glass, etc	159 05			
J. & A. Bertram	do	60 48			
H. Miller & Co	Paints, etc.	300 83			
J. Macdonald & Co.	Carpets, mats, etc	1,181 38			
J. Kay, Son & Co.	do	200 70			
Jolliffe & Co.	Tables	210 00			
C. Rogers & Sons Co.	Furniture, etc	1,165 80			
Jolliffe & Co.	Mattresses, etc	1,009 00			
R. Thorne & Co.	Iron beds, etc.	986 00			
W. J. McGuire & Co.	Copper baths	99 00			
Waterous Engine Works	Hot water boilers	525 00			
G. Duthie & Sons	Slating	325 10			
J. Maloney	Gravel	102 50			
R. Williams	Sand, lime, etc	343 00			
Pay lists	Men employed on coal sheds, etc	1,185 48			
			8,917 76		
				9,821 56	
	MIMICO BRANCH.				
J. & E. Dickenson	On account contract, cottages	144,900 00			
do	do drainage, cottages	1,800 00			
Purdy, Mansell & Mashinter.	do heating do	10,800 00			

Ball Electric Light Co.	do	lighting	do	2,160 00		
Douglas Bros.	do	sheet iron	do	1,800 00		
D. Plewes	Pump		do	63 00		
R. McEwan	Boring well		do	1,755 00		
E. Gartley	Pumping out well		do	40 00		
P. McEwan	do		do	30 00		
R. Chisholm	Services as Clerk of Works,		do	1,252 00		
Sundry newspapers	Advertising, *re* tenders,		do	132 50		
R. P. Fairbairn	Travelling expenses,		do	17 70		
Verral Cab Co	Cab hire,		do	15 75		
E. Coste	Fee, *re* examination and report on well, cottages			50 00		
H. Martin	On account contract, farm houses			1,526 00		
Sundry newspapers	Advertising, *re* tenders, do			23 47		
					166,365 42	
	FURNITURE AND FURNISHINGS.					
Gall & Anderson	Cedar posts			347 55		
Dominion Barbed Wire Co.	Wire fencing			100 05		
D. Plewes & Co	Pumps			37 00		
Wheeler & Bain	Furnishings			388 30		
Byron & Ryan	Furniture			1,294 50		
Ogilvy, Alexander & Anderson	Carpets, etc			954 18		
Ewing & Co	Pictures			100 00		
J. Edgar & Son	Crockery, etc			214 41		
R. Thorne & Co	Iron beds			38 48		
Jolliffe & Co	Mattresses			520 50		
A. Montgomery	Waggon and cart			210 00		
Mitchell & Miller	Waggon			86 90		
G. E. Montgomery	Horse			135 00		
Adam Smith	Harness			36 00		
W. Rennie	Farm implements			336 15		
A. Harris, Son & Co	do			150 00		
M. J. Doran	Tile			87 50		
G. T. Railway Co	Freight on tile			22 50		
M. J. Doran	Fertilizer			320 00		
G. T. Railway	Freight on fertilizer			31 00		
Stone & Wellington	Trees			287 50		
					5,697 52	
						172,062 94
	ASYLUM FOR INSANE, LONDON.					
J. Purdom	On account contract, main building			6,304 39		
J. Hayman	do		do	71 50		
W. Steveley	Ironwork, etc.,		do	105 55		
E. Winnett & Son	Tank,		do	103 37		
Smith Bros.	Steamfitting,		do	1,220 87		
J. Purdom	Lumber, carpentering, etc., main building			341 87		
	Carried forward			8,150 55		181,884 50	2,355,873 10

PUBLIC BUILDINGS—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	8,150 55		181,884 50	2,355,873 10
	ASYLUM FOR INSANE, LONDON—*Continued.*				
T. Green & Co	Lumber, main building	39 00			
Rice Lewis & Son	Pipe, etc., do	104 67			
Keith & Fitzsimons	Castings, do	140 22			
Stevens & Burns	do do	139 07			
J. Ritchie	do do	183 69			
J. Morrison	do do	55 92			
S. Meadows	Reflector, do	66 00			
J. E. Crawford	Electric bells, do	20 00			
W. H. Heard & Co	Chandeliers, do	49 00			
Smith Bros. & Co	Gas pipes, etc., do	700 00			
Robinson Little & Co	Sheeting, do	11 88			
J. P. O'Byrne	Coal, do	108 58			
Brooks Bros	Cartage, do	10 00			
J. P. O'Byrne	do do	16 41			
B. O'Byrne	Services as Clerk of Works, do	412 00			
W. Higgin	Travelling expenses, do	50 00			
Wm. Tytler	On account contract, engine and hydrants	5,591 63			
Cryer & Co	do do	1,090 66			
J. Kennedy	Cement, plastering, etc., do	80 53			
J. Reid & Co	Force pump, do	24 39			
W. Cryer & Co	Iron pipe, etc., do	205 93			
Pay list	Men employed, do	266 66			
J. Purdom	On account contract, Bursar's residence	463 21			
do	Masonry, drainage	254 00			
W. Skelly	do plumbing, etc., do	559 03			
W. Tytler	Lumber, do	68 21			
Dececo Co.	Paddocks, do	15 66			
Smith Bros	Castings, do	157 71			
E. Leonard & Sons	do do	38 72			
E. Winnett & Son	Sheet iron, etc., do	47 14			
Dececo Co.	Sinks, do	322 25			
J. Reid & Co	Duty and freight on sinks, do	111 93			
N. W. Walker Clay Mfg. Co.	Pipe, etc. do	232 80			
Globe Sewer Pipe Co	do do	42 12			
Brooks Bros	do do	5 00			

A. D. Cameron & Son	do	do		123 45			
W. Skelly	do	do		239 21			
J. S. Pearce & Co	Grass and rye seed	do		14 80			
J. Dalzell's Son & Co	Oil	do		7 87			
Vacuum Oil Co	do	do		32 50			
J. Reid & Co	Cement	do		75 74			
Robinson, Little & Co	Sheeting	do		7 63			
J. Purdom	Putting down pump	do		36 25			
F. R. Heakes	Travelling expenses	do		7 00			
W. Edwards	do	do		8 26			
Kivas Tully	do	do		9 75			
R. P. Fairbairn	do	do		8 50			
Pay lists	Men employed	do		4,023 58			
Brooks Bros	Cartage	do		41 00			
Michigan Central Railway	Freight charges	do		1 66			
G. T. Railway Co	do	do		38 87			
Collector Customs	Duty charges	do		32 10			
C. G. Horetzky	Services as Draughtsman	do		112 50			
F. W. Farquhar	do Superintendent	do		520 00			
G. E. Waring	do and expenses	do		683 15			
Waring, Chapman & Farquhar	Balance on account services	do		586 95			
C. G. Horetzky	Expenses and disbursements	do		147 26			
J. Purdom	Repairing cottage injured by fire			3,447 16			
Smith Bros	Steam fittings	do		614 75			
J. Reid & Co	Iron pipe, etc			25 69			
B. O'Byrne	Travelling expenses			59 41			
Kivas Tully	do			18 00			
F. P. O'Callaghan	do			20 35			
R. P. Fairbairn	do			6 20			
F. R. Heakes	do			10 75			
					30,797 91		
	FURNITURE AND FURNISHINGS.						
S. C. Kanady	Lumber			554 80			
W. J. Craig	do			325 00			
J. Ferguson & Son	Iron bedsteads, etc			426 50			
W. H. Heard & Co	Globe valves			9 00			
W. Barron	Gas burners			158 70			
Fire Extinguisher Mfg. Co	Extinguisher			900 00			
E. & C. Gurney Co	Boiler			300 00			
J. Reid & Co	Radiators, pipe, etc			1,471 04			
W. Stevely & Son	Pipe			4 87			
Smith & Anthony	Steam kettles			344 10			
Collector Customs	Duty charges on kettles			96 00			
C. P. Railway Co	Freight charges do			11 53			
Massey Manufacturing Co	Implements			90 00			
	Carried forward			4,691 84	30,797 91	181,884 50	2,355,873 10

PUBLIC BUILDINGS—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	4,691 84	30,797 91	181,884 50	2,355,873 10
	ASYLUM FOR INSANE, LONDON—*Continued.*				
	FURNITURE AND FURNISHINGS—*Continued.*				
M. J. Doran	Plow	15 00			
John Fox	Wagon	90 00			
J. Young	Carpentering	82 80			
James Grant	do	93 60			
H. Coughty	Plastering	87 50			
R. Flynn	Travelling expenses	33 55			
C. P. Railway Co	Freight charges	2 08			
G. T. Railway Co	do	1 80			
			5,098 17		
	ASYLUM FOR INSANE, HAMILTON.			35,896 08	
J. & E. Dickenson	On account contract, cottages	10,895 14			
Warden King & Son	do do	780 00			
F. P. O'Callaghan	Travelling expenses do	10 00			
F. R. Heakes	do do	5 75			
J. & E. Dickenson	On account contract, Superintendent's residence	706 27			
Miles, Hunting & Co	do pumping engine	2,024 00			
Adam Clark	Hydrant caps do	6 00			
Kivas Tully	Travelling expenses do	10 75			
Adam Clark	Radiators	47 60			
J. & E. Dickenson	Carpentering, plastering, etc	580 85			
F. P. O'Callaghan	Travelling expenses	13 70			
F. R. Heakes	do	3 75			
Kivas Tully	do	18 75			
			15,102 56		
	FURNITURE AND FURNISHINGS.				
M. Brennen & Sons Mfg. Co	Lumber	594 05			
Atchison & Co	do	44 31			
A. Hope & Co	Hardware, etc	39 40			
Wood, Vallance & Co	do	273 25			
do	Wire fencing	144 00			

Laidlaw Mfg. Co	Oven, kettle, etc	576 89			
Hamilton & Toronto Sewer Pipe Co	Pipe	694 40			
J. Eastwood & Co	Wall paper	44 01			
T. C. Watkins	Shades, poles, etc	325 15			
Geo. Gale & Sons	Furnishings	24 50			
Walter Woods & Co	do	44 10			
A. R. Kerr & Co	do	268 34			
Bowman & Moore	do	9 00			
T. Hedley	Upholstering	67 52			
Black & Whitman	Iron bedsteads	1,650 00			
Canada Moss Co	Moss	300 00			
Malcolm & Souter	Furniture, etc	616 20			
Pennington & Baker	do	565 35			
			6,280 47		
				21,383 03	
	ASYLUM FOR THE INSANE, KINGSTON.				
J. Forin	Building wharf	792 99			
McKelvey & Birch	Steam boiler, Superintendent's residence	500 00			
Rice Lewis & Son	Steam pump, water supply	1,300 00			
McKelvey & Birch	Tinsmithing	57 22			
F. P. O'Callaghan	Travelling expenses	34 25			
			2,684 46		
	FURNITURE AND FURNISHINGS.				
McKelvey & Birch	Steam trap, pipe, etc	88 82			
James Reid	Furniture	336 00			
H. Brame	do	209 50			
Ewing & Co	Oil paintings	205 00			
F. Nisbet	Books	53 97			
T. McAuley	do	50 38			
			913 67		
				3,628 13	
	ASYLUM FOR IDIOTS, ORILLIA				
John Forin	On account contract, front building	49,500 00			
F. R. Heakes	Travelling expenses do	62 50			
Kivas Tully	do do	6 75			
R. P. Fairbairn	Expenses and disbursements do	26 65			
Pay lists	Men employed do	48 75			
James Patton	Services as Clerk of Works do	735 60			
A. B. Ross	do Draughtsman do	108 00			
Sundry newspapers	Advertising *re* tenders do	199 84			
J. R. Eaton	On account contract, coal sheds	550 00			
do	Removing doors do	78 00			
James Sinclair	On account contract, piggery, etc	2,191 00			
Keith & Fitzsimons	Castings, etc., cottages	197 98			
	Carried forward	53,704 47		242,791 74	2,355,873 10

PUBLIC BUILDINGS—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	53,704 47		242,791 74	2,355,873 10
	ASYLUM FOR IDIOTS, ORILLIA—*Continued.*				
Inglis & Hunter	Boiler cottages	565 37			
Tressider & Henderson	Force pump do	29 95			
R. Carroll	Firebrick, etc do	30 84			
H. Boyes	Brick, cement, etc do	62 30			
J. J. Mahoney	Bricklaying do	90 50			
G. Ringham	Tinsmithing do	283 05			
J. Patton	Services as Clerk of Works do	185 50			
Matthews & Boyes	Balance contract, new farm buildings	943 99			
B. G. Tisdale & Co	Stable fittings do	550 81			
G. Matthews	Carpentering do	9 50			
Kivas Tully	Travelling expenses do	7 75			
			56,464 03		
	FURNITURE AND FURNISHINGS.				
P. Madden	Storm sash	57 00			
Keith & Fitzsimons	Copper baths, castings, etc	125 78			
T. B. Mitchell	Furniture	31 60			
Margrett & Swain	do	40 18			
Estate, A. Black & Co	do	24 00			
R. N. Donnelly	Sewing machine	40 00			
M. Millar	Stove, scales, etc	45 23			
J. B. Thompson	Clocks, cutlery, etc	125 50			
J. Foster	Lantern and slides	87 00			
Geo. Thomson	Crockery	11 00			
H. Cook & Co	Toy books	4 05			
Hart & Co	School books	52 11			
H. A. Nelson & Sons	do	16 68			
Selby & Co	do	14 78			
W. Ramsay	Wagon and carts	192 00			
W. Tudhope & Son	Wagon and sleighs	145 00			
E. Murphy	Harness	29 00			
M. Millar	Road scraper, etc	23 31			
J. Morrison	Hose	68 05			
			1,132 27		
				57,596 30	

	REFORMATORY FOR BOYS.				
Craig & Payette	Balance contract, pumps	1,848 82			
do	do new boiler and addition to engine house	1,800 00			
B. O'Byrne	Travelling expenses	33 55			
F. P. O'Callaghan	do	16 75			
Sundry newspapers	Advertising *re* tenders, boiler and engine house	18 05			
			3,717 17		
	FURNITURE AND FURNISHINGS.				
D. Davidson	Lumber	30 00			
Northy & Co	Pump	222 30			
A. Thomson	Harness	35 00			
Stone & Wellington	Trees	113 40			
D. J. Shanahan	Buggy	95 00			
W. Smyth	Horse	175 00			
M. Staunton & Co	Wall paper	41 03			
Capon & Co	Varnish, oil, etc	9 70			
C. Belleville	Carpentering	66 00			
W. Ouilette	do	74 00			
P. O'Connell	Painting	77 50			
W. Manin	do	69 75			
			1,008 68		
				4,725 85	
	REFORMATORY FOR FEMALES, TORONTO.				
J. B. Smith & Sons	Lumber	92 07			
Rosebrugh, Sons & Co	Hardware, etc	18 55			
P. Paterson & Son	Copper wire	23 75			
Geo. Evans	Galvanized iron	16 85			
J. Morrison	do	14 68			
Rice Lewis & Son	Pipe, etc	25 65			
R. Carroll	Pipe, cement, etc	40 72			
E. & C. Gurney Co	Castings	1 80			
Rice Lewis & Son	do	95 92			
C. P. Industries	Brick	32 00			
Toronto Rubber Co	Hose	49 50			
R. Jones	Bricklaying	117 00			
J. Ross	Carpentering	173 25			
Geo. Evans	Tinsmithing	330 56			
J. Ritchie	Plumbing, etc	135 10			
Keith & Fitzsimons	Steam-fitting	26 00			
J. Aylward	Laboring	64 35			
Street Railway Co	Car tickets	4 25			
Rose Cartage Co	Cartage	13 00			
City of Toronto	Proportion of blockpaving and sewer	555 67			
	Carried forward	1,830 67		305,113 89	2,355,873 10

PUBLIC BUILDINGS—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	1,830 67		305,113 89	2,355,873 10
	REFORMATORY FOR FEMALES, TORONTO—*Continued.*				
Standard Bank	To cover advances made heretofore to pay appropriation *re* Mercer escheat	31,141 23			
Edgar & Malone	Balance of costs for services do	591 01			
do	Commission *re* sale of lots do	109 37			
			33,672 28		
	FURNITURE AND FURNISHINGS.				
Withrow & Hillock	Lumber	80 01			
T. Lalor	Locks	75 00			
J. B. Smith & Sons	Glass partitions	103 93			
M. O'Connor	Staining and glazing	72 15			
Jos. S. Stockdale	Window shades	48 00			
McMaster, Darling & Co	Carpets	67 34			
J. Kay, Son & Co	Linoleum, matting, etc	136 52			
C. P. Industries	Balance on account labor, moving fence	7 60			
			590 55		
				34,262 83	
	CENTRAL PRISON, TORONTO.				
M. O'Connor	Painting, etc.		190 20		
	FURNITURE AND FURNISHINGS.				
J. B. Smith & Sons	Lumber, etc	5,229 59			
Gall, Anderson & Co	do	1,148 82			
Brown & Love	Door and window sills	637 80			
J. & A. Bertram	Hardware	688 27			
H. Miller & Co	Paints, etc	433 66			
H. A. Nelson & Sons	Broom machinery	3,016 50			
H. W. Karch	Machinery	1,222 39			
McGregor, Gourlay & Co	do	900 00			
Goldie & McCulloch	do	6,216 76			
Lyman Bros. & Co	do	8 65			
J. Inglis & Son	Boiler	2,500 00			
S. P. Miller & Son	Brick press	125 00			

Laidlaw M'f'g Co	Brick machinery	450 00			
St. Lawrence Foundry Co	Beams and columns	645 33			
W. B. Malcolm	Cesspool, pipe, etc	59 89			
E. & C. Gurney Co	Pipe, etc	71 99			
Wheeler & Bain	do	115 80			
J. Robertson & Co	do	121 43			
Bertram & Co	Steel pipes, wire, beams, etc	4,616 48			
Rice Lewis & Son	Galvanized iron	278 75			
Lalor Bros	Valves	120 01			
J. Inglis & Son	Castings	195 09			
Boyle & Richardson	do	52 50			
Massey M'f g Co	do	212 33			
A. R. Willans	Steam pump	180 00			
Dodge Wood Split Pulley Co.	Pulleys	131 73			
G. F. Haworth & Co	Leather belting	693 56			
P. Hay	Planing knives	11 52			
E. Terry	Cement, pipe, etc	1,018 74			
R. Carroll	do	370 73			
B. Gibson	Stone and sand	16 00			
R. Whillans	Sand	75 00			
A. W. Godson	Sand and cedar blocks	25 15			
J. Maloney	Lime and sand	18 20			
Christie Lime and Stone Co	Stone, lime, etc	152 75			
Toronto Stone Co	Stone copping	29 50			
M. Staunton & Co	Wall paper	9 38			
Mullen & Muir	do and hanging	73 08			
Antomatic Refrigerator Co	Refrigerator	100 00			
J. Kay, Son & Co	Carpets	327 88			
McMaster, Darling & Co	Curtains	78 33			
Thomas Quinn	Stove	16 00			
T. G. Rice	Wire guards, etc	46 32			
Beldon Bros	Books	299 40			
Wheeler & Bain	Tinsmithing	292 79			
Metallic Roofing Co	Roofing	361 90			
R. Rennie & Son	Slating	683 77			
Thomas Beard	Teaming sand, stone, etc	303 70			
J. Blair	do	115 50			
Brandon M'f'g Co	Machinery, tools, plant, and patterns	27,579 34			
J. P. Wagner	Services valuating do	62 50			
W. Munro	do do	62 50			
W. Reid	do do	270 00			
T. Worswick	Services and expenses *re* nail works	24 50			
G. T. Railway Co	Laying track, renewal of siding	454 28			
H. T. Miller	To pay duty charges on brick machine	38 60			
G. T. Railway Co	Freight charges on machinery	111 01			
P. Stafford	Travelling expenses	21 75			
			63,181 85		
				63,375 05	
	Carried forward			402,751 77	3,355,873 10

PUBLIC BUILDINGS—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward			402,751 77	2,355,873 10
	INSTITUTION FOR THE DEAF AND DUMB, BELLEVILLE.				
John Forin	On account contract, kitchen	450 00			
do	do refrigerator room	232 45			
E. & C. Gurney Co	do steam heating, etc	666 40			
Automatic Refrigerator Co	do refrigerator	200 00			
J. Forin	Repairing brick walls, etc	417 32			
F. P. O'Callaghan	Travelling expenses	14 10			
			1,980 27		
	FURNITURE AND FURNISHINGS.				
A. N. Pringle	Lumber	326 10			
W. K. Smith	do	22 32			
Flint & Holton	do	131 00			
J. Lewis	Hardware, etc	52 15			
J. W. Walker	Cement, etc	12 50			
W. W. Chown & Co	Iron pipe, etc	31 74			
R. Templeton	Paints, oils, etc	97 36			
Geo. Twining	Painting	125 00			
W. W. Chown & Co	Closets	148 29			
Tr y Laundry Machine Co	Machinery	1,883 85			
E. H. Kellogg & Co	Lubricator	19 00			
J. G. Frost	Furniture	112 80			
Bramhall, Deane & Co	Range, etc	283 33			
John Lewis	Crockery	141 03			
W. J. Reid & Co	do	22 95			
Geo. Ritchie & Co	Bedding	606 46			
M. Malcolm & Son	Blankets	285 48			
J. Hadden	Picture frames	70 00			
Grip Printing Co	Maps	36 00			
Rolph, Smith & Co	Diplomas and certificates	110 00			
D. Appleton & Co	Books	38 40			
Stone & Wellington	Trees	60 00			
J. M. Strong	Certificate *re* return of machinery	1 00			

Collector Customs	Duty charges	82 60			
G. T. Railway Co	Freight charges	14 27			
Express Co	Charges	3 55			
			4,717 18		
				6,697 45	
	INSTITUTION FOR THE BLIND, BRANTFORD.				
C. G. Horetzky	Travelling expenses	8 45			
F. P. O'Callaghan	do	3 50			
			11 95		
	FURNITURE AND FURNISHINGS.				
Schultz Bros	Lumber	98 98			
Robt. Russell	Plumbing	143 36			
R. C. Chave	Painting	85 00			
W. Fitness	Bricklaying, plastering, etc	72 00			
H. W. Brethour & Co	Carpets	50 56			
Schultz Bros	Show case	117 50			
S. Hewitt	Piano	400 00			
J. Foster	Time detector	296 25			
G. Gale & Sons	Iron bedsteads	157 50			
A. Harris, Son & Co	Mower	55 00			
D. Foley	Trees	86 50			
Stone & Wellington	do	30 00			
D. Stevenson	do	22 10			
D. Furniss	Tree planting, etc	133 75			
			1,748 50		
				1,760 45	
	AGRICULTURAL COLLEGE, GUELPH.				
R. Maloney	Balance contract, carriage house		804 27		
do	Ironwork do		37 10		
Sundry newspapers	Advertising do		4 90		
F. W. Schwendimann	On account contract, farm buildings		15,850 00		
Metallic Roofing Co	do do		2,135 25		
B. G. Tisdale Co	Stable fittings do		708 05		
C. Bodley	Services as Clerk of Works do		686 00		
F. R. Heakes	Travelling expenses do		12 50		
K. Tully	do do		8 50		
G. T. Railway Co	Freight charges do		15 42		
Sundry newspapers	Advertising *re* tenders do		69 86		
D. Kennedy & Sons	On account contract, tankhouse sewage		720 00		
Guelph White Lime Co	do pipe, cement, etc., tankhouse sewage		1,041 97		
E. Stannard	do painting do		42 80		
R. H. Barber	do do do		38 29		
R. Maloney	Making tanks do		90 70		
D. Kennan	Work on tanks do		10 00		
Keith & Fitzsimons	Closets do		597 91		
	Carried forward		22,873 52	411,209 67	2,355,873 10

PUBLIC BUILDINGS—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		22,873 52	411,209 67	2,355,873 10
	AGRICULTURAL COLLEGE, GUELPH—*Continued.*				
R. Stewart	Lumber sewage		156 90		
R. Maloney	do carpentering, etc. do		85 94		
J. M. Bond & Co	Hardware do		123 10		
Guelph White Lime Co	Cement, pipe, etc. do		302 71		
A. Tait	Pipe do		6 27		
A. Mills	Galvanized iron, etc. do		26 90		
Walker & Maloney	Castings do		49 34		
Keith & Fitzsimons	do do		60 66		
Northey & Co	Steam pump do		175 00		
Toronto Rubber Co	Hose do		15 00		
T. G. Rice	Iron strainers do		7 00		
Jas. Foster	Level do		6 00		
F. W. Schwendimann	Carpentering, etc. do		22 50		
R. H. Barber	Painting, glazing, etc. do		59 00		
D. Keleher	Stone cutting do		1 00		
Rice Lewis & Son	Oakum do		6 10		
H. O'Meara	Rosin do		1 00		
W. J. Smith & Co	Disinfectants do		15 40		
F. S Miller	Services and expenses as Superintendent do		210 19		
Pay lists	Men employed do		823 01		
T. Coleman	Use of tools do		38		
C. G. Horetzky	Expenses and disbursements do		265 68		
H. O'Meara	do do		2 40		
Kivas Tully	do do		2 75		
T. J. Healey	Teaming do		85		
M. Mulligan	do do		9 30		
G. T. Railway Co	Freight charges do		13 18		
Express Co	Charges do		1 85		
Warden, King & Son	Hot water apparatus, Superintendent's residence		360 00		
F. W. Schwendimann	Carpentering do		18 25		
do	Excavating and masonry, cellar, do		449 85		
R. Stewart	Lumber		254 41		
Walker & Maloney	Pipe		86 86		
H. A. Morgan	Carpentering		4 17		

J. McGroggan	do			67 50	
Smalley Manufacturing Co	Dairy machinery			84 64	
R. Piggot	Hay forks			225 00	
T. Garden	Grading lane			24 00	
Toronto Rubber Co	Hose			249 00	
F. P. O'Callaghan	Travelling expenses			4 00	
					27,150 61
	EXPERIMENTAL FARM.				
Watson Manufacturing Co	Implements, farm proper			94 00	
R. Piggot	do			31 10	
Bowman & Moore	do			3 00	
G. B. Morris & Co	do			2 50	
Massey Manufacturing Co	do			40 00	
M. O'Connor	do			30 00	
J. Fleury's Sons	do			30 00	
W. T. Dingle Estate	do			15 00	
Waterloo Manufacturing Co	do			280 00	
C. P. Railway Co	Freight charges on implements, farm proper			1 11	
G. T. Railway Co	do	do		5 45	
Express Co	Charges	do	do	1 39	
Collector Customs	Duty charges	do	do	29 75	
W. Heather, jr	Repairing furnace, piggery		do	5 40	
Benallick & Foster	Masonry and plastering, piggery		do	33 50	
W. Pearson	Laying floor, etc	do	do	10 85	
W. Steffler	Brick	do	do	27 00	
R. Stewart	Lumber	do	do	75 32	
Ball & Gordon	Hardware	do	do	10 50	
R. Stewart	Lumber		do	59 57	
J. M. Bond & Co	Hardware		do	21 72	
Harvey & Co	do		do	18 36	
G. B. Morris & Co	do		do	82	
T. Hatherly	Painting and glazing		do	52 50	
Walker and Maloney	Carpentering, etc.		do	52 26	
R. Parker	Buggy		do	85 00	
G. Beattie	Harness		do	25 00	
R. Piggot	Building track		do	23 50	
R. Stewart	Lumber, Experiments			109 34	
R. Maloney	Carpentering, Experiments			168 62	
A. Bruce & Son	do	do		38 50	
Pay lists	Men employed	do		75 94	
T. Shaw	Travelling expenses	do		5 75	
J. Mills	do	do		7 55	
J. L. Hobson	do	do		5 00	
Guelph Township	Share of grading, garden, etc			50 00	
Pay lists	Levelling lawn	do		242 93	
do	Gravelling road	do		31 80	
					1,830 03
	Carried forward				440,190 31 2,355,873 10

PUBLIC BUILDINGS—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward			440,190 31	2,355,873 10
	EDUCATIONAL DEPARTMENT AND NORMAL SCHOOL, TORONTO.				
Gall Anderson & Co	Lumber		564 14		
J. B. Smith & Sons	do		239 34		
Geo. Gall	do		175 72		
J. & A. Bertram	Hardware		41 84		
J. H. Pendrith	Iron rods, etc		70 00		
E. & C. Gurney Co	Radiators, etc		63 05		
J. Morrison	Castings		284 02		
T. Meadows	do		1 00		
Rice Lewis & Son	do pipe, etc		84 10		
Keith & Fitzsimons	do and plumbing		678 32		
J. Ritchie	do do		902 24		
John Wright	do do		453 69		
M. O'Connor	Painting, glazing, etc		1,625 31		
R. J. Stanley & Son	do and papering		451 60		
Joseph Murphy	Plastering, etc		20 00		
M. Walsh	do		107 80		
G. Ringham	Tinsmithing		79 56		
H. Williams & Co	Slating		80 66		
T. Hunter	Building work shop, etc		807 41		
G. F. Bostwick	Folding seats		258 00		
W. T. Stewart	Cartage		1 00		
Sundry newspapers	Advertising		11 20		
				7,000 00	
	NORMAL SCHOOL, OTTAWA.				
Butterworth & Co	Plumbing, castings, etc		286 75		
Sanitary Plumbing Co.	do		64 65		
J. White	Painting, glazing and carpentering		2,334 24		
Harris & Campbell	Furniture		87 10		
Bryson, Graham & Co	Carpets, etc		123 21		
Kivas Tully	Travelling expenses		45 75		
				2,941 70	

	SCHOOL OF PRACTICAL SCIENCE.				
A. J. Brown	On account contract, addition		31,500 00		
B. O'Bryne	Services as Clerk of Works, addition		216 00		
W. J. Smith	do do		376 00		
Sundry newspapers	Advertising *re* tenders do		115 00		
J. B. Smith & Sons	Lumber		48 90		
M. O'Connor	Painting, glazing, etc		293 28		
M. McBrearty	Plumbing		27 50		
Keith & Fitzsimons	do and castings		215 99		
J. Ritchie	do do		71 14		
E. & C. Gurney Co	Castings, etc		118 97		
Rice Lewis & Son	do		119 03		
Toronto Rubber Co	Tubing		6 00		
Rose Cartage Co	Cartage		9 50		
				33,117 31	
	OSGOODE HALL.				
M. O'Connor	Painting, glazing, etc		1,623 26		
J. Ritchie	Plumbing		52 75		
Geo. Evans	Tinsmithing		17 50		
King & Yorston	Furniture, upholstering, etc		1,626 02		
Office Specialty Co	Office furniture		90 00		
Henry Pim	Iron counter		200 00		
L. Yorke	Slate for counter		81 65		
				3,691 18	
	GOVERNMENT HOUSE.				
A Weller & Co	On account contract, lodge		1,028 40		
Sundry newspapers	Advertising *re* tenders, do		9 00		
Rosebrugh Sons & Co	Hardware		4 15		
Geo. Evans	Tinsmithing		145 81		
T. Lalor	Locksmithing, etc		48 95		
W. Milligan	Painting, glazing, etc		1,246 86		
R. Jones	Bricklaying		15 00		
J. Aylward	Laboring		8 25		
J. Kay Son & Co	Carpets, etc		81 36		
H. Williams	Cleaning carpets, etc		36 82		
J. A. Simmers	Seeds, bulbs, etc		51 40		
J. Ryan	Cartage		36 00		
				2,712 00	
	ALGOMA DISTRICT.				
Kivas Tully	Travelling expenses, lock-up, Bruce Mines		5 00		
Geo. Ball	On account contract, court room, etc, Gore Bay		4,500 00		
G. B. Angus	Services as Clerk of Works do		104 00		
	Carried forward		4,609 00	489,652 50	2,355,873 10

PUBLIC BUILDINGS—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		4,609 00	489,652 50	2,355,873 10
	ALGOMA DISTRICT—*Continued.*				
T. Dinsmore	Levelling grounds Gore Bay		2 25		
Wheeler & Bain	Stoves do		169 43		
Paulin & Plummer	Zinc do		2 10		
Totten, Henderson & Co	Tinsmithing do		2 50		
Olmstead & Lothian	Carpentering do		5 65		
G. B. Angus	Travelling expenses do		146 22		
K. Tully	do do		5 00		
Sundry newspapers	Advertising *re* tenders do		14 78		
T. H. Jackson	On account contract, fence, lock-up, Killarney		90 00		
do	do lock-up do		192 00		
R. English	Furniture do		4 00		
K. Tully	Travelling expenses do		9 00		
G. B. Angus	do do		23 00		
K. Tully	do lock-up, Little Current and Manitowaning		9 00		
R. Connell	Drilling gas pipes, etc, lock-up, Manitowaning		88 35		
Geo. Ball	On account contract, lock-up, Sault Ste. Marie		5,850 00		
G. B. Angus	Services as Clerk of Works do		424 00		
Rice Lewis & Son	Iron, steel, etc do		378 36		
Robt. Carroll	Pipe, cement, etc do		74 60		
W. H. Plummer & Co	Lime do		2 60		
J. Gilpin	Sand do		3 00		
Rosebrugh Sons & Co	Stoves, pipe, etc do		224 09		
J. Scott	Carpentering, etc do		10 25		
Kivas Tully	Travelling expenses do		12 00		
G. B. Angus	do do		17 55		
do	Postage and stationery do		1 00		
Sundry newspapers	Advertising, *re* tenders do		17 00		
G. Newman	Lumber, etc., registry office, Sault Ste. Marie		68 47		
W. J. Miller	On account contract, lock-up, Thessalon		314 00		
K. Tully	Travelling expenses do		5 00		
G. B. Angus	do do		20 70		
				12,794 90	
	THUNDER BAY DISTRICT.				
Graham, Horne & Co	Lumber, lime, etc., court room, Port Arthur		103 90		
Wells & Emerson	Lawn mower do		17 00		

Thos. Marks & Co.	Wire fencing	do		17 08		
Kivas Tully	Travelling expenses	do		7 50		
King & Yorston	Furniture, lock-up, Fort William			55 67		
Geo. Evans	Stoves, pipe, etc.	do		93 30		
Piper Bros	Hardware	do		7 75		
T. Armstrong	Timber, etc.	do		4 83		
T. J. Campbell	do	do		2 00		
D. J. McDonald	Sash	do		2 00		
Hackquil Bros	Painting	do		40 00		
McCutcheon & Co.	do	do		98 88		
Pay list	Men employed	do		43 42		
H. Munro	Services, *re* repairs	do		16 00		
K. Tully	Travelling expenses	do		7 50		
H. Munro	do	do		6 25		
D. J. McDonald	do	do		2 00		
					525 08	
	MUSKOKA DISTRICT.					
W. J. White	Furniture, lock-up,	Bracebridge		5 75		
J. C. Nelson	do	do		18 00		
J. L. Fenn & Co.	Stove, etc.	do		35 75		
J. Pratt	Clock	do		7 50		
T. Miles & Son	Scales	do		5 00		
W. Harper	Carpentering	do		57 75		
Kivas Tully	Travelling expenses	do		5 50		
J. L. Fenn & Co.	Furnishings, registry office,	Bracebridge		35 78		
M. Kinton	On account contract, court room,	Huntsville		170 00		
do	Pump	do		8 00		
Geo. Hunt	Painting	do		62 00		
B. O'Byrne	Travelling expenses	do		5 00		
F. P. O'Callaghan	do	do		12 15		
Kivas Tully	do	do		2 50		
					430 68	
	PARRY SOUND DISTRICT.					
G. Silvester	On account contract, fence, lock-up,	Burk's Falls		272 20		
Ontario Pump Co.	Pump	do		32 00		
W. Wilson	Digging well	do		78 25		
Pay lists	Men employed	do		42 25		
F. P. O'Callaghan	Travelling expenses	do		14 05		
Kivas Tully	do	do		3 75		
B. O'Byrne	do	do		7 25		
R. Starkey	Registration fee	do		1 63		
W. Wilson	Lumber, court room,	Burk's Falls		1 00		
M. C. Drew	Hardware	do		4 35		
John Wilson	Carpentering	do		4 00		
W. C. McKenzie	Travelling expenses	do		9 95		
	Carried forward			470 68	503,403 16	2,355,873 10

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		470 68	503,403 16	2,355,873 10
	PARRY SOUND DISTRICT—*Continued.*				
C. P. Industries	Iron bedsteads, lock-up, Magnetawan		16 00		
Ogilvy, Alexander & Anderson	Blankets do		21 80		
G. B. McKnight	Bedding do		5 42		
Muskoka and Nipissing Navigation Co	Freight charges do		2 52		
E. S. Pratt	Furniture, lock-up, Parry Sound		19 00		
R. Logan	Repairing doors and locks do		11 00		
W. Beatty	Varnishes, oil, etc. do		8 42		
Geo. Ball	On account contract, court room, Parry Sound		6,623 50		
J. H. McLaren	Services, as Clerk of Works do		480 00		
F. R. Heakes	Travelling expenses do		12 70		
J. H. McLaren	do do		54 45		
Sundry newspapers	Advertising, *re* tenders, court room and fence, Parry Sound		13 00		
				7,738 49	
	NIPISSING DISTRICT.				
Dunlop & Chapman	Hardware, paint, etc., lock-up, Mattawa		13 25		
John Forin	Balance contract, court room, etc., North Bay		2,993 67		
do	Rebuilding fence do		707 36		
J. Baxter	On account contract do		367 00		
Rice Lewis & Son	Locks do		24 75		
Ogilvy, Alexander & Anderson	Blankets, quilts, etc do		34 50		
E. & C. Gurney Co	Stoves, etc do		151 90		
Wm. Ferguson	Lamps, chandeliers, etc do		113 76		
J. W. Richardson	Furnishings do		71 83		
King & Yorston	Furniture do		155 78		
W. Doran	Registration fee do		1 40		
W. C. McKenzie	Services as Clerk of Works do		108 00		
do	Travelling expenses do		16 88		
F. P. O'Callaghan	do do		21 35		
Kivas Tully	do do		10 25		
B. O'Byrne	do do		7 85		
John Forin	Painting, lumber, etc., registry office, North Bay		116 97		

T. McKelvey	Closet	do	12 00		
do	On account contract, lock-up, Sudbury		1,627 40		
Pay list	Men employed	do	76 75		
J. H. McLaren	Travelling expenses	do	106 35		
Kivas Tully	do	do	8 50		
Sundry newspapers	Advertising *re* tenders	do	7 00		
			6,754 50		
	Less amount received from sale of old site		225 00		
				6,529 50	
	RAINY RIVER DISTRICT.				
Oliver & McQuarrie	On account contract, court room, Rat Portage		314 50		
Western Lumber Co	Lumber	do	14 40		
Jacob Hose	Paints, etc	do	14 80		
Geo. Evans	Stove pipe, etc	do	97 46		
Jacob Hose	Iron, etc	do	25 14		
King & Yorston	Furniture	do	76 14		
				542 44	
	BROCK'S MONUMENT.				
R. Goring	Repairing monument		140 00		
do	Constructing steps		50 00		
F. R. Heakes	Travelling expenses		3 80		
				193 80	
	Total Public Buildings				518,407 39
	PUBLIC WORKS.				
	PENINSULA CREEK IMPROVEMENT.				
Mrs. J. Taylor	Supplies		1 57		
T. J. Sacret	do		1 55		
W. J. Casselman	do		19 50		
A. N. Ingersoll	do		13 90		
White Bros	do		9 77		
Goldie & Fisher	do		55 80		
P. Conway	do		6 00		
T. Willis	do		16 01		
A. Denton	Towing		27 25		
D. Kernaghan	Teaming		25 75		
	Carried forward		177 10		2,874,280 49

PUBLIC WORKS—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		177 10		2,874,280 49
	PENINSULA CREEK IMPROVEMENT—*Continued.*				
T. Walters	Travelling expenses and disbursements		14 75		
W. Edwards	do		13 54		
A. Mills	do		55 32		
Pay lists	Men employed		456 36		
				717 07	
	SCUGOG RIVER WORKS.				
F. Crandell	Wood		35 63		
A. Cullen	Steel pikes and rings		2 25		
Hurley & Brady	Supplies		185 71		
P. O'Neil	do		21 66		
S. G. O'Grady	Travelling expenses		15 25		
Pay lists	Men employed		1,823 02		
				2,083 52	
	MAGANETAWAN WORKS.				
S. J. Henderson	Dynamite		25 00		
A. Fitzer	Belts, etc		15 35		
W. Kirk	Repairing diving suit		1 50		
E. A. Morris	Freight charges on plant		16 85		
J. Kyle	Teaming and board of men		34 75		
C. McCormack	Teaming		12 00		
Geo. Forrest	Travelling expenses		5 25		
W. H. Walsh	do		6 50		
G. Delaney	do and disbursements		28 40		
Pay lists	Men employed		133 76		
				279 36	
	MUSKOKA LAKE WORKS.				
Lambert Love	On account contract, Port Carling bridge		336 52		
W. Ryan	Supplies		170 04		
A. Campbell	do		4 66		
A. Burgess	do		33 88		

W. K. Foreman	do		9 63		
G. Johnston	do		75		
W. Torrance	do		5 25		
A. Thompson	do		1 00		
W. Hanna & Co	do		48 12		
T. Currie	Board of men		92 58		
R. J. Jestin	do		19 40		
G. W. Vanderburg	do		3 00		
S. J. Henderson	Dynamite		67 50		
J. F. Young	Spikes, etc		17 16		
J. E. Clipsham	Bolts, spikes, etc		31 54		
Mowry & Sons	Pulleys, etc		3 00		
A. Burgess	Nails, pails, etc		2 25		
Rice Lewis & Son	Detonators		5 00		
T. Burgess, Jr	Lumber		215 80		
J. S. Wallis	do		6 77		
R. McDermott	do		6 30		
W. Foreman	Timber		3 00		
G. R. Massey	Blacksmithing		11 10		
N. & N. W. Railway	Freight charges		63		
Canadian Express Co	Charges		8 35		
D. Kenaghan	Teaming		14 00		
G. Massey	do		4 00		
T. Brown	do		15 00		
N. Zuefeldt	do		1 50		
R. J. Jestin	do		1 00		
C. W. Vanderburg	Towing		16 00		
C. Begg	Travelling expenses		3 55		
P. Grozell	do		6 20		
S. G. O'Grady	do		15 20		
R. McCallum	do		8 50		
W. E. Cameron	do		4 00		
G. Forrest	do	and disbursements	19 53		
W. H. Walsh	do	do	8 00		
Pay lists	Men employed		1,393 98		
				2,613 69	
	GULL AND BURNT RIVER WORKS.				
R. Dawson	Balance contract, constructing pier, Maple and Beech Lakes		250 00		
do	Materials	do	50 00		
				300 00	
	GEORGIAN BAY CHANNEL.				
A. Campbell	Supplies		94 63		
J. & T. Ryder	do		4 17		
W. Beatty	do		12 59		
T. Bartliff	Drills		3 00		
	Carried forward		114 39	5,993 64	2,874,280 49

PUBLIC WORKS—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		114 39	5,993 64	2,874,280 49
	GEORGIAN BAY CHANNEL—*Continued.*				
S. J. Henderson	Dynamite		21 00		
Parry Sound Lumber Co	Coal and hay		2 18		
Ray & Co	Towelling		1 20		
J. Connolly	Divers' mitts		5 00		
Galna & Danter	Moving camp		3 00		
J. Galna	Use of boats		16 80		
Muskoka & Georian Bay Navigation Co'y	Freight charges		34 63		
J. Harvey	Teaming		8 00		
A. Hoodley	Travelling expenses		6 65		
G. Delaney	do and disbursements		26 25		
C. Begg	do do		11 95		
Pay lists	Men employed		416 49		
				667 54	
	KUSHOG LAKE DAM.				
Treasurer County Haliburton	Aid *re* construction of dam at outlet			300 00	
	MISSISSIPPI RIVER IMPROVEMENT.				
E. Hutchings	Supplies		53 98		
W. J. McHendry & Bros	do		103 66		
D. McDougall	do		13 54		
J. Baird	do		9 70		
J. L. Rogers	do		8 23		
J. S. Rodger	do		15 66		
T. Birkett	Dynamite		49 00		
W. Taylor	Detonators		4 80		
E. A. Cole	Spikes, wedges, fuse, etc		69 56		
C. J. Griffin	Powder and wire		107 50		
A. C. Burgess	Lumber		68 00		
A. Ross	To pay teaming		3 25		
J. Miller	Teaming		8 00		
R. McCallum	Travelling expenses		71 50		

T. Walters	do		27 90		
A. Ross	do	and disbursements	75 62		
Pay lists	Men employed		774 45		
				1,464 35	
	HEAD RIVER IMPROVEMENT.				
A. Campbell	Supplies		121 86		
J. C. Kyle	do		3 25		
G. Harrison	do		3 95		
J. Harrison	do		8 06		
Longford Lumber Co	do		6 26		
J. McCann	Board of men, etc		7 30		
W. J. Chirpaw	do		4 50		
J. McLennan & Co	Dynamite, etc		195 78		
W. Adair	Lumber, etc		1 80		
H. Tallman	do		23 60		
A. O'Neil	Teaming		11 25		
B. Gunigle	do		20 00		
W. J. Chirpaw	Livery hire		2 50		
R. McCallum	Travelling expenses		6 50		
S. G. O'Grady	do		5 40		
J. Pearson	do		3 80		
T. Walters	do	and disbursements	20 35		
A. Mills	do	do	44 61		
Pay lists	Men employed		486 05		
				976 82	
	LAKE OF BAYS.				
A. Slemmont	Lumber		6 26		
White Bros	Iron		1 95		
D. Spragge	Bolts, spikes, etc		19 55		
J. L. Fenn & Co	Tools		8 69		
W. Higgins	Board of men		86 65		
do	Use of boat and crib		23 00		
G. T. Railway Co	Freight charges		12 90		
G. F. Marsh	do	and towing	17 50		
A. Osborne	Teaming		3 00		
W. Walters	Travelling expenses and disbursements		17 55		
G. Delurey	do	do	14 75		
Pay lists	Men employed		370 02		
				581 82	
	RIVER BEAUDETTE.				
Treasurer, counties Stormont, Dundas and Glengarry	Aid *re* dredging and removing obstructions			1,500 00	
	Carried forward			11,484 17	2,874,280 49

PUBLIC WORKS—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward			11,484 17	2,874,280 49
	LOCKS DAMS, AND SWING BRIDGES.				
	LOCKMASTERS' SALARIES.				
W. Brokenshire	Services as Lockmaster, Balsam Lake	240 00			
John Clarke	do Lindsay Locks	346 50			
A. Denton	do Mary's and Fairy Lakes	240 00			
A. Kennedy	do Maganetawan	240 00			
P. M. Shannon	do Port Carling	300 00			
P. Young	do Young's Point	240 00			
J. Knoepfly	do Caretaker, Ah-Mic, Lake dam	80 00			
T. Burgess	do Bala works	300 00			
James Bayne	do Deer Lake dam	360 00			
D. Galloway	do Elliott's Falls and Norlands	50 00			
A. S. Smith	do Mary's Lake dam	100 00			
R. McCausland	do Ewing bridge, south of Lindsay	193 00			
Enoch Cox	do Port Sandfield	25 00			
A. Burgess	do Bridgetender, swing bridge, Port Sandfield	75 00			
T. Walters	do Superintendent locks, dams and bridges	1,200 00			
			3,989 50		
J. Daniels	Timber	70 60			
D. Sawyer	do	20 00			
Hob on & Wilson	do	20 55			
J. Dutton	do	219 58			
R. Dunsford	do	20 83			
R. Rowe	do	5 60			
S. Dawson	do	8 83			
T. Preston	do	9 64			
Findlay & McLachlan	do	31 14			
Sadler & Dundas	do	10 08			
Canada Land & Emig'tion Co.	do	21 93			
J. Arnberg	Lumber	86 40			
J. J. Hunter	do	6 75			
J. McMahon	do	2 38			
C. R. McDermott	do	17 08			
J. Fenwick	do	8 00			
S. Dawson	do	9 70			
Hobson & Wilson	do	5 00			

W. Ganier	do	72 00			
C. Young	do	32 81			
F. H. McLaughlin	do	78 18			
J. T. Wallis	do	1 50			
J. A. Ellis	do	2 00			
A. Ross	Spar poles	2 00			
W. H. Caseman	Iron	1 42			
J. Bertram & Co.	Drill steel	13 26			
G. Massey	Bolts, etc	4 70			
A. Fitzer	do	15 13			
J. F. Young	Spikes, etc	4 00			
Wm. Wright	do	6 08			
M. May	do	25			
M. Morrison	do	2 40			
M. C. Drew	do	4 55			
W. Rice	Chain	5 50			
J. N. Erskine	Chain, bolts, etc	10 50			
James Bain	Stables	3 50			
J. Makins	Bridge wheels, bolts, etc	125 40			
J. Spencer	Castings	3 60			
W. Hanna & Co	Hardware	14 52			
McLennan & Co	do	46 40			
J. G. Edwards	do	120 77			
H. S. May	do	9 00			
Estate L. York	Cement	14 00			
J. A. Ellis	Sharpening drills	1 00			
G. Sutton	Paint	40			
J. Heard	Oil, etc	16 26			
W. Kirk	do	19 21			
T. Mitchell	Gravel	2 00			
G. R. Massey	Blacksmithing	6 00			
J. Reid	do	3 50			
A. Fitzer	do	70			
T. Bell	Repairing slide	1 50			
G. Sutton	Painting canoe	4 00			
Toronto Rubber Co	Rubber mits, etc	4 00			
J. Connelly	Diving boots	4 00			
J. Berry	Diving pads	7 00			
J. W. Wallis	Blankets	7 95			
R. Maw	Boat, sails, etc	75 00			
C. D. Barr	Printing	6 50			
R. S. Porter	Stationery, etc	10 85			
P. M. Shannon	do	1 65			
T. Fowler	Use of jack screws	2 00			
T. Sacret	Care of scows and dredge	25 00			
Thos. Curry	Use of boat	2 00			
L. Downey	Washing bedding	6 00			
J. C. Roy	Supplies	74 00			
C. Davis	do	10 41			
	Carried forward	1,459 22	3,989 50	11,484 17	2,874,280 49

PUBLIC WORKS—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	1,459 22	3,989 50	11,484 17	2,874,280 49
	LOCKS, DAMS AND SWING BRIDGES—*Continued.*				
T. Goodwin	Supplies	11 57			
F. May	do	4 00			
McKelvey & Dart	do	186 76			
J. Arnberg	do	45 03			
D. Bowen	do	5 83			
W. Overton	do	4 25			
A. Campbell	do	85 40			
F. Palmer	do	5 18			
W. Pengelly	do	12 09			
A. Kennedy	do	1 02			
G. Inglis	do	3 15			
W. Welsh	Board of men	23 40			
W. Brokenshire	do	67 95			
N. Ingram	do	3 50			
Hobson & Wilson	do	19 25			
P. Conway	do	13 29			
A. Graham	do	42 60			
C. May	do	12 40			
T. Armstrong	do	5 15			
J. Lucas	do	3 00			
J. T. Perkins	do	7 65			
C. W. Vanderburg	do	52 14			
P. Barr	do	7 10			
C. Way	do	11 00			
D. Bowen	do	5 00			
J. Kyle	do	57 70			
T. Gatchell	Fares of men	6 50			
E. Bush	Travelling expenses	5 50			
S. G. O'Grady	do	61 99			
C. Henderson	do	4 15			
C. W. Vanderburg	do	5 00			
R. McCallum	do	50 20			
G. Delurey	do and disbursements	56 35			
W. Edwards	do do	13 55			
G. W. Rose	do do	153 00			
T. Walters	do do	235 52			

P. Grozell	do	do	10 00		
G. Forrest	do	do	84 48		
W. Walters	do	do	62 92		
W. H. Walsh	do	do	16 49		
J. Pearson	do	do	74 35		
O'Leary & O'Leary	Law costs		14 30		
G. T. Railway Co	Freight charges		15 96		
Muskoka and Georgian Bay Navigation Co	do	and fares of men	42 43		
Muskoka and Nipissing Navigation Co	do		25 91		
J. Free	To pay freight charges		4 97		
Express Co	Duty, charges, etc		12 65		
C. W. Vanderburg	Towing		28 50		
J. Free	Teaming		36 75		
E. R. Edwards	do		5 00		
R. White	do		4 00		
W. Boutley	do		2 40		
J. Swadfagure	do		1 00		
E. O'Connor	do		3 00		
R. Cahill	do		2 50		
A. Graham	do		7 50		
J. Paul	do		14 25		
T. Godwin	do		13 00		
T. W. Quinn	do		16 00		
J. Foley	do		2 00		
P. Barr	do		2 00		
Pay lists	Men employed		3,869 24		
				7,117 99	
					11,107 49
	SURVEYS, INSPECTIONS, ARBITRATIONS AND AWARDS.				
Jas. F. Hanes	Damages, *re* dam, Mary's and Fairy Lakes			45 00	
Registrar, Lindsay	Registration fee			1 60	
C. G. Horetzky	Services as Draughtsman			112 50	
R. McCallum	Travelling expenses			66 25	
Thos. Walters	do	and disbursements		254 65	
					480 00
	Total Public Works				23,071 66
	Carried forward				2,897,352 15

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward				2,897,352 15
	COLONIZATION ROADS.				
A. P. Wickware	On account of work and supplies, Addington Road			624 29	
John Crosswell	do Ah-mic do			401 87	
Frederick Cossitz	do Alice and Petewawa Road			499 80	
Thos. Kidd	do Alice, 3rd Con. do			516 30	
Martin Jonnop	do Alice & Wilberforce do			251 10	
Phil. Straus	do Alsace do			404 04	
F. Elmhirst	do Anstruther do			514 74	
Joseph Antaya	do Antoine do			534 82	
George Cain	do Batchewaning do			200 86	
James Wilson	do Bedford Bridges			150 00	
Patrick O'Brien	do Bell Rapids Road			200 00	
J. E. Fitzgerald	do Bobcaygeon do		488 80		
Wm. Hartle	do do do		380 96		
Sundry persons	For supplies do do		130 69		
				1,000 45	
Wm. Hartle	On account of work and supplies, Blairhampton Road			251 30	
Arthur Yeoman	do Bracebridge do			800 57	
B. Wickett	do Bridge repairs, M & P. S. Districts			390 39	
John Fraser	do Brunel branch Road		492 71		
W. B. Osborne	do do do		110 00		
				602 71	
Robert Shaw	do Buckhorn Road			200 00	
Geo. Kernick	do Burk's Falls do		832 72		
Sundry persons	For supplies do do		167 28		
				1,000 00	
M. E. Sanderson	On account of work and supplies, Burleigh do		186 51		
F. Elmhirst	do do do		309 80		
				496 31	
David Taylor	do Calabogie Bridge			1,000 00	
Charles Legris	do Callender Road			500 00	
Charles Varin	do Callender & North Bay Road			500 75	
John Wilson	do Calvin do			302 23	
Jas. Campbell	do Cameron do		302 92		

E. B. Munn	do	do	do		650 00	
Sundry persons	For supplies,	do	do		182 61	
						1,135 53
James Wilson	On account of work and supplies,	Cardwell	do			500 00
F. Elmhirst	do	Chandos	do			278 62
W. T. Pateman	do	Cockburn Island	do		504 11	
Sundry persons	For supplies	do	do		17 91	
						522 05
Malcolm McGregor	On account of work and supplies,	Coffin Additional	do			490 00
do	do	Coffin 3rd Con.	do			490 00
B. Wickett	do	Combermere Bridge			500 00	
John Campbell	do	do	do		47 00	
						547 00
B. Wickett	do	Commanda Creek Bridge				440 00
Wm. Irving	do	Copper Cliff Road				153 00
Peter Coyne	do	Coyne's do				496 63
Thos. Andrew	do	Cross Lake Bridge				212 50
Geo. Campbell	do	Dalton, 25 & 26 S. L. Road				206 29
Wm. Harris	do	Dayton Station	do			499 95
Wm. Thompson	do	Dean's Lake	do		610 97	
Sundry persons	For supplies,	do	do		157 51	
						798 48
Peter McDonald	On account of work and supplies,	Douglas & Scotch Bush	do			257 00
Alex. Stewart	do	Eagle Lake	do		620 00	
Sundry persons	For supplies,	do	do		159 96	
						779 96
B. Wickett	On account of work and supplies,	East River Bridge				600 00
Thos. Sadler	do	Eganville & Cobden Road				464 04
Patrick Rodden	do	Eganville & Foy	do			290 00
John Dwyer	do	Eganville & Killaloe	do			508 67
O. Lefevere	do	Fraser and Alice	do			496 94
Wm. Claxton	do	Frontenac	do			500 00
R. J. Hoath	do	Galbraith	do		521 69	
Sundry persons	For supplies,	do	do		41 50	
						563 19
Wm. Hartle	On account of work and supplies,	Gelert Station	do		209 77	
Sundry persons	For supplies,	do	do		49 25	
						259 02
D. Kavanagh	On account of work and supplies,	Gilmour Station	do			111 05
Richard Thomas	do	Golden & Round Lake	do			199 75
John Boyd	do	Goulais River Bridge				85 05
N. Crowe	do	Gull Lake Road				200 00
J. Chippier	do	Hagarty 4th & 5th Concession Road				522 43
D. Kavanagh	do	Hastings	do		762 38	
Sundry persons	For supplies,	do	do		122 82	
						885 20
Robt. Shaw	On account of work and supplies,	Harvey	do			434 55
L. Fitzgerald	do	Herschel	do			309 39
F. Austin	do	Herschel & Faraday	do			200 57
		Carried forward				26,079 39 2,897,352 15

COLONIZATION ROADS—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward			26,079 39	2,897,352 15
	COLONIZATION ROADS—*Continued.*				
Peter Finn	On account of work and supplies, Hinchinbrooke Road			200 00	
Charles Hood	do Hood's & Port Vernon do			14 00	
F. Wing	do Humphrey 4th Concession do			356 24	
Wm. Sparling	do Hyde Chute Bridge			1,000 00	
Jos. Kennedy, Jr.	do Indian River do			158 55	
John Boyd	Inspection			1,050 00	
J. D. Simpson	do			1,250 00	
C. F. Aylsworth	Balance of 1888, inspecton		559 27		
do	On account do		1,600 00		
				2,159 27	
M. Lounsbury	Inspection			937 07	
H. Smith	do			224 30	
D. O'Halloran	do			16 00	
J. J. Murphy	On account of work and supplies, Kearney No. 2 Road		1,009 09		
Sundry persons	For supplies, do do		162 51		
				1,171 60	
D. Kavanagh	On account of work and supplies, Lake Township do			266 42	
J. Mackay	do L'Amable Du Fond Bridge			63 75	
W. J. Rintoul	do Lavant Road			506 31	
Henry Davey	do Laxton do			100 00	
Charles Kaye	do Long Point Road			453 32	
David Larkin	do Lonsdale & Bridgewater Road			300 25	
Mark Longford	do Macaulay do		816 34		
Sundry persons	For supplies, do do		185 53		
				1,001 87	
M. Hedican	On account of work and supplies, Mackay's Station do			501 18	
A. Hughson	do Manitoulin Island Roads		967 29		
Sundry persons	For supplies, do		133 66		
S. R. McKewen	On account of work and supplies, do		966 72		
Sundry persons	For supplies, do		134 53		
O. Hinds	On account of work and supplies, do		1,003 69		
Sundry persons	For supplies, do		118 22		
				3,324 11	

B. Wickett	On account of work and supplies,	Maple Island Bridge			600 00	
John Thompson	do	McDougall & McKellar Road			375 78	
D. McFarlane	do	McDougall do			500 00	
Xavier Nadeau	do	Mattawa do			600 14	
J. Longhrin	do	Mattawa Bridge		397 10		
A. Hepburn	do	do		4,449 62		
Sundry persons	For supplies,	do		234 11		
					5,080 83	
P. Sunstrum	On account of work and supplies,	Mattawa & Callendar Road			1,007 26	
Wm. N. Murphy	do	Mattawa & Temiscamingue Road			998 64	
B. Hanna	do	Middle River Bridge			100 51	
C. K. Arthurs	do	Mills Road		474 19		
Sundry persons	For supplies,	do		41 50		
					515 69	
Leviot Simpson	On account of work and supplies,	Missionary Road			500 11	
Wm. Allan	do	Mississaga do			307 30	
D. Kavanagh	do	Mississippi do		636 81		
Sundry persons	For supplies,	do do		134 00		
G. W. Sweatnam	On account of work and supplies,	do do		701 89		
Sundry persons	For supplies,	do do		117 37		
					1,590 07	
Jas. Campbell	On account of work and supplies,	Monck do		200 77		
F. Train	do	do do		316 80		
D. Kavanagh	do	do do		233 13		
A. Crego	do	do do		455 18		
Sundry persons	For supplies,	do do		54 80		
					1,260 68	
F. Austin	On account of work and supplies,	Monmouth do			983 07	
W. A. White	do	Monteith & Perry Road		665 75		
Sundry persons	For supplies,	do do		154 13		
					819 88	
Gilbert Flynn	On account of work and supplies,	Mountain Grove Station Road			403 37	
F. Train	do	Mud Lake (Narrows) Bridge			851 73	
David Tennant	do	Muskoka road		593 71		
Sundry persons	For supplies,	do do		218 06		
					811 77	
Jas. Lavelle	On account of work and supplies,	Murkrat Lake Road			249 84	
Thos. Burgess	do	Musquosh Bridge			6 00	
M. Dwyer	do	Nepigon Road			1,108 65	
Harry Sirrett	do	North Cardwell Road			500 49	
B. Grattan	do	North Bay & Temiscamingue Road			996 99	
Arthur Milne	do	Northern do		500 84		
Thos. McGown	do	do do		654 70		
Sundry persons	For supplies,	do do		148 37		
					1,303 91	
John Thompson	On account of work and supplies,	North West do		493 95		
Sundry persons	For supplies,	do do		136 14		
					630 09	
		Carried forward			63,236 43	2,897,352 15

COLONIZATION ROADS—*Continued.*

TO WHOM PAID.	SERVICE.			$ c.	$ c.	$ c.	$ c.
	Brought forward					63,236 43	2,897,352 15
	COLONIZATION ROADS—*Continued.*						
F. Austin	On account of work and supplies,	North Shore	Road			163 34	
R. Kilgour	do	Nosbonsing	do		377 15		
Sundry persons	For supplies,	do	do		107 74		
						484 89	
Robt. Fox	On account of work and supplies,	Oka	do		829 21		
Sundry persons	For supplies,	do	do		202 63		
						1,031 84	
Xavier Plaunt	On account of work and supplies,	Opeongo	do			508 78	
Wm. Adams	do	Orange Valley	do			500 85	
Peter Sammon	do	Osceola & District line	do			499 30	
J. S. Miller	do	Otter Lake	do			450 00	
Thos. McGown	do	Parry Sound	do		1,019 11		
F. Richardson	do	do	do		858 72		
Sundry persons	For supplies,	do	do		165 32		
						2,043 15	
F. H. McKain	On account of work and supplies,	Pembroke & Mattawa (A.C.br.)	do			449 93	
Wm Hartle	do	Peterson	do		235 74		
I. Fitzgerald	do	do	do		490 86		
						726 60	
Jas. Murphy	do	Petewawa 15 and 16 con.	do			201 07	
S. St. Louis	do	Perrault Settlement & Sanson's	do			401 55	
John Clark	do	Powassan	do		615 93		
Sundry persons	For supplies,	do	do		183 25		
						799 18	
F. M. Devlin	On account of work and supplies,	Powassan & Callendar	do		757 83		
Sundry persons	For supplies,	do	do		246 32		
						1,004 15	
M. Dwyer	On account of work and supplies,	Rabbit Mountain & Whitefish Lake	Road			1,099 38	
John Campbell	do	Raglan	do			401 00	
S. W. Norton	do	Rainy River	do		3,463 10		
Sundry persons	For supplies,	do	do		524 37		
						3,987 47	
Geo. Copeland	On account of work and supplies,	Rainy Lake	do			303 05	
John Boyd	do	Rat Portage Bridge and	do			3,876 35	

Walter Oliver	do	Rat Portage and Rainy River	do			2,200 00	
T. E. Fitzgerald	do	Reid	do			200 00	
M. McGregor	do	Rock Lake Bridge				200 00	
D. McEwen	do	Ross & Bromley T. L. Road				25 00	
P. Muchenbacker	do	Rosseau Falls	do			115 00	
Jas. Allan	do	Ryde	do				
A. C. Fletcher	do	do	do		601 71		
					201 52		
						803 23	
Wm. Lowe	do	Ryde Centre	do			154 79	
Wm. Todd	do	Ryerson Centre	do			499 23	
F. Elmhirst	do	Scott	do		291 46		
D. Kavanagh	do	do	do		313 37		
						604 83	
J. T. Hempton	do	Sharbot Lake Bridge				40 00	
Patrick Bennett	do	Silver Lake Road				302 12	
Patrick Maloney	do	Snake River Bridge				749 00	
Wm Sutherland	do	South Armour Road				400 82	
Robt. Shaw	do	South Harvey	do			100 00	
Jas. A. Milne	do	South River	do			500 03	
A. G. Watford	do	Spanish River	do		799 03		
Sundry persons	For supplies,	do	do		201 37		
						1,000 40	
Geo. Hamilton	On account of work and supplies,	St. Joseph Island Road			850 19		
Sundry persons	For supplies,	do	do		230 91		
						1,081 10	
B. Wickett	On account of work and supplies,	Stevenson T. L. Bridge			1,200 00		
Sundry Persons	For supplies,	do	do		150 29		
						1,350 29	
Hugh Hunter	On account of work and supplies,	Stoney Creek	do			101 40	
P. M. Shannon	do	Storage and freight				5 00	
Wm. Lang	do	Strong 30 S Line Road				499 15	
Wm. Smith	do	Sturgeon Falls	do		836 69		
Sundry persons	For supplies,	do	do		161 66		
						998 35	
Henry Elliott	On account of work and supplies,	Sudbury	do		1,624 45		
Sundry persons	For supplies,	do	do		493 00		
						2,117 45	
Thos. O'Connor	On account of work and supplies,	Sydenham & Bedford Road				746 42	
Peter Coyne	do	Thessalon Station	do			380 00	
Ed. Garrow	do	Trout Lake Junction	do			500 50	
Geo. Cain	do	Vankoughnet	do		755 03		
Sundry persons	For supplies,	do	do		244 63		
						999 66	
A. Montgomery	On account of work and supplies,	Victoria Road Bridge				19 56	
J. T. Anderson	do	Westmeath 9th Con. Road				510 00	
Langton Carr	do	Westphalia	do		1,200 00		
Sundry persons	For supplies,	do	do		293 93		
						1,493 93	
		Carried forward				100,865 57	2,897,352 15

16 (P.A.)

1891

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward			100,865 57	2,897,352 15
	COLONIZATION ROADS—*Continued.*				
John McLeod	On account of work and supplies, Widdifield Road			796 38	
O. Garvin	do Widdifield & Phelps do			613 19	
Peter Mick	do Wilberforce do			253 75	
T. E. Fitzgerald	do Whitefish Lake do			635 95	
I. McCarthy	do Wylie Station do			501 79	
	Total Colonization Roads				103,666 63
	NOTE -Supplies were furnished by "sundry persons" as follows, viz :—				
	Eckardt Kyle & Co	$ 831 45			
	Wm. Thomson & Co	301 45			
	R. H. Ramsey & Co	404 70			
	Wm. Ryan	2,490 40			
	Hughes Cros	437 70			
	Geo. W. Shaver	1,075 08			
	John Milne & Co	310 50			
	Hamilton Bridge and Tool Co	356 63			
	CROWN LANDS EXPENDITURE.				
	BOARD OF SURVEYORS.				
F. F. Passmore	Services as Examiner		75 00		
A. C. Webb	do		75 00		
P. S. Gibson	do		75 00		
H. Wilson	do		40 00		
E. Chapman	do		10 00		

G. B. Kirkpatrick	do Secretary		75 00		
Cassels & Cassels	Copies of judgments		10 00		
F. L. Blake	Reference books		4 00		
				364 00	
	AGENTS' SALARIES, COMMISSIONS AND DISBURSEMENTS.				
Anderson, D	Salary and disbursements		519 58		
Best, S. G	do		533 50		
Barnes, G. S	do		450 00		
Brown, C. P	do		510 00		
Campbell, P. C	do		2,096 50		
Cockburn, J. D	do		524 22		
Dawson, G. W	do		517 43		
Darby, E J	do		425 00		
Dill, J. W	do		533 84		
Duncan, A. G	do		209 17		
Day, J. F	do		500 00		
Fielding, W	do		565 16		
Gilligan, B. J	do		500 00		
Handy, E	do		526 88		
Kennedy, J. D	do		505 75		
McWilliams, J. B	do		2,285 74		
McDonald, D. G	do		546 36		
Macpherson, R	do		512 90		
Mackay, T	do		515 63		
McKay, J	do		580 36		
Macdonald, D. F	do		1 651 49		
Macdonald, W. J	do		1,643 65		
Margach, W	do		1.600 00		
Munro, H	do		1,100 00		
Nicols, W. L	do		519 65		
Nicholson, B	do		112 50		
Reeves, J	do		503 50		
Ryan, T. J	do		518 90		
Ruttan, J. F	do		250 00		
Scarlett, J. S	do		527 49		
Stewart, C. R	do		513 79		
Tait, J. R	do		510 70		
Way, J. F	do		920 50		
Whelan, J	do		507 57		
F. J. Moore	Services as Fishery Overseer		92 36		
M. Flanaghan	do		50 00		
J. H. Willmott	do		88 65		
W. F. Nickerson	Inspection, Houghton		12 00		
W. H. Ryan	do Proton		22 00		
E. Stewart	do Indian Reserve		823 96		
A. J. Cameron	do Burleigh		37 60		
H. Munro	do *re* burnt timber		150 00		
	Carried forward		25,453 73	364 00	3,001,018 78

CROWN LANDS EXPENDITURE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		25,453 73	364 00	3,001,018 78
	AGENTS' SALARIES, COMMISSIONS, ETC.—*Continued.*				
E. Stewart	Services, inspecting		10 00		
J. Sheppard	do do		10 00		
D. Tasse	do Timber Office		100 00		
T. James, jr	do Quebec Agency		75 00		
T. S. Marvin	do re Park lands, Chatham		10 00		
H. Stewart	Expenses, Rainy River Commission		733 75		
G. B. Kirkpatrick	do Rat Portage Commission		675 00		
W. H. Carpenter	do Rainy River Commission		264 50		
Aubrey White	Travelling expenses		136 75		
T. C. Taylor	do		211 20		
G. B. Kirkpatrick	do		27 50		
J. A. G. Crozier	do		32 45		
G. B. Cowper	do		31 60		
J. McKay	Furnishings, Quebec Office		58 25		
J. Pouporc	To pay for stationery		10 33		
W. J. Macdonald	Copies of documents, etc., Ottawa Agency		681 18		
				28,521 24	
	FOREST RANGING AND INSPECTION OF TIMBER LANDS.				
Barnes, G	Services and disbursements		758 49		
Brady, J	do		805 00		
Bick, G	do		1,158 21		
Brennan, P	do		725 00		
Brooks, A	do		520 00		
Colville, J	do		144 00		
Cunningham, J	do		655 50		
Crawford, A. C	do		100 00		
Christie, P	do		457 74		
Dulmage, A. F	do		505 00		
Fraser, D	do		930 00		
Foot, W. E	do		292 00		
Halliday, J	do		787 00		
Halliday, F	do		1,293 25		
Johnson, S. M	do		1,658 71		
Kennedy, J	do		1,070 82		
Ludgate, T	do		1,249 55		
Moore, D. H	do		1,143 82		
Margach, W.	do		3,282 44		

McSherry, P	do		519 20		
McGown, T	do		775 85		
McGown, M	do		1,554 91		
McCogherty, P	do		1,018 50		
Paget, George	do		1,457 00		
Regan, J	do		971 41		
Russell, W	do		1,718 86		
Robinson, W	do		100 00		
Smith, J. W	do		1,131 00		
Shaw, J	do		1,485 15		
Stewart, H	do		98 25		
Saunders, B. J	do		24 50		
Turgeon, J. B	do		700 00		
White, J. B	do		575 00		
				29,666 16	
		FIRE RANGING.			
Aussaint, T	Services and disbursements		126 00		
Billingham, S	do		113 00		
Bromley, T	do		131 00		
Bowland, W	do		234 00		
Bremner, W	do		180 00		
Bell, J	do		248 00		
Blanchet, O	do		160 00		
Borron, E	do		246 00		
Conway, J	do		200 00		
Coghlan, J	do		262 00		
Cochrane, J	do		353 00		
Clarke, J. S	do		149 25		
Dufond, I	do		385 87		
Donally, R. S	do		336 00		
Donnelly, P	do		431 50		
Evans, J	do		238 00		
Elmhurst, W	do		255 00		
Elliott, W	do		174 00		
Flanaghan, W	do		328 00		
Garvey, P	do		457 12		
Gagne, F	do		122 00		
Greene, W. H	do		86 00		
Galna, J	do		16 25		
Howden, F	do		262 00		
Halvey, C	do		262 00		
Harvey, A	do		172 00		
Henderson, C	do		196 00		
Johnston, R. W	do		206 00		
Johnson, W	do		131 00		
Johnson, E	do		212 00		
Laveile, H	do		17 6 00		
Lavaidière, F	do		13 8 00		
		Carried forward	6,986 99	58,551 10	3,001,018 78

CROWN LANDS EXPENDITURE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		6,986 99	58,551 40	3,001,018 78
	FIRE RANGING—*Continued.*				
Link, A.	Services and disbursements		204 00		
Majcan, A	do		174 00		
Mitchell, J. C	do		172 00		
Maves, A	do		104 00		
Maves, W	do		362 00		
Morrison, W	do		100 00		
Marshall, W	do		171 00		
McGown, W	do		36 00		
McNab, W. C	do		268 00		
McFarlane, J	do		186 00		
McFarlane, W	do		25 00		
McMurien, H	do		236 00		
McGuey, D	do		473 37		
McDonald, A	do		406 49		
McKinnon, R	do		208 00		
McPhee, A	do		172 00		
McCallum, A	do		212 00		
McKay, A	do		196 00		
O'Neil, A. J	do		104 00		
Oram, J	do		262 00		
Oakes, M	do		210 00		
Penault, W. H	do		131 00		
Porter, J	do		130 00		
Prince, A	do		263 00		
Ritchie, A. W	do		68 00		
Reilly, M. M	do		214 00		
Robertson, J	do		184 00		
Robinson, W	do		206 00		
Streatfield, L. C	do		292 00		
Skuce, T	do		517 50		
Sage, N	do		94 00		
Sedgewick, J	do		164 00		
Shiels, J. A	do		243 50		
Scantlin, J	do		114 47		
Thompson, F. H	do		300 00		
Vannier, N	do		168 00		
Vankoughnet, J	do		40 00		
Welsh, I	do		262 00		

Woods, R	do		172 00		
Wilson, C	do		262 00		
Wilcox, G	do		120 00		
Wilcox, T	do		8 00		
Young, W	do		264 50		
			15,486 82		
	Less refunds by owners of timber		6,802 55		
				8,684 27	
	SURVEYS.				
Burke, W. R	Survey of Township		1,594 67		
Baird, Alex	do		612 17		
Bowman, I	do		800 00		
Byrne, T	do		692 96		
Butler, J. W. J	do		150 00		
Beatty, D	Survey of Village Cannington		150 00		
Bell, W	do Timber berths		719 77		
Cooper, D	Inspection of surveys		5 00		
Campbell, A. W	Survey of township		1,610 84		
Dickson, J	Inspection of surveys		2,078 91		
De Gurse, J	Survey of township		1,000 00		
Fitzgerald, J. W	do		3,200 00		
Laird, J. S	do		1,500 00		
McLean, J. K	do		1,611 47		
McKenna, J. J	do		1,616 65		
Niven, Alex	do		3,600 00		
Purvis, F	do		1,621 41		
Proudfoot, H. B	do		1,614 34		
Russell & Co	Survey of lakes		216 25		
Rainboth, E. J	Survey of township		1,475 00		
Saunders, B. J	do		1,600 00		
Saunderson, D. L	do		207 69		
Sewell, H. De Q	do		1,700 00		
Stewart, E	Survey *re* disputed claims, Rat Portage		1,326 38		
do	Survey of roads		300 00		
Saunders, B. J	do islands in Rideau Lake		783 82		
Sadler, T	Inspection of surveys		96 00		
Tiernan, J. M	Survey of township		515 18		
Unwin, C	Copy of plan *re* marsh land, Toronto		20 00		
Whitson, J. F	Survey of timber berths		100 00		
F. L. Foster	Services		270 00		
Map and School Supply Co	Maps, plans, etc		130 25		
Copp, Clark Co	do		1,177 60		
A. E. Barlow	do		15 00		
J. L. Morris	do		6 00		
Department of Interior	do		123 00		
J. Foster	Solar compass		300 25		
				34,540 01	
	Total charges, Crown Lands				101,775 68
	Carried forward				3,102,794 46

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward				3,102,794 46
	REFUNDS.				
	EDUCATION.				
Arnold, J.	Refund Subscription Superannuation Fund		12 00		
Anderson, Harry	do		161 02		
Bruce, Mrs. M.	do		256 03		
Bowles, G. H.	do		4 00		
Boddy, A. M.	do		22 05		
Bremner, E. A.	do		4 00		
Bolton, B. F.	do		2 00		
Bowes, Miss E.	do		125 00		
Bishop, C. T.	do		1 00		
Baird, Mrs. G.	do		94 60		
Broudage, Manly V.	do		7 00		
Bateman, Joseph	do		10 00		
Beattie, Alex.	do		22 00		
Brown, Geo. E.	do		4 00		
Carter, Mrs. C.	do		116 00		
Carruthers, Jas. B.	do		8 00		
Dunphy, J.	do		24 00		
Dean, Reuben G.	do		8 00		
Dixon, W. L.	do		18 00		
Etherington, E. J.	do		4 00		
Fleming, J.	do		10 00		
Forrester, J. H.	do		7 00		
Foster, R.	do		155 00		
Gibson, J. J.	do		4 00		
Garrow, A.	do		10 00		
Hart, H.	do		22 00		
Hart, G. C.	do		7 00		
Harris, A. E.	do		2 00		
Hay, D.	do		10 00		
Henderson, J. M.	do		17 00		

Hogg, Thos. R.	do			3 00	
Jones, D. W.	do			2 00	
Knowles, M. F.	do			54 68	
Kirwin, T.	do			8 00	
Kennedy, Thos. W.	do			20 00	
Kilgour, Wm. J.	do			25 00	
Keys, Thos. A.	do			17 00	
Lindsay, Wm.	do			2 00	
Lockhart, G. D.	do			4 00	
Lister, J. L.	do			5 00	
Loftus, J.	do			3 00	
Mence, W. E.	do			6 00	
Mitchell, T.	do			15 00	
Moore, J.	do			7 00	
Moloney, P. J.	do			2 00	
Milburn, J.	do			12 00	
Moulton, John	do			11 00	
McElroy, J.	do			8 00	
McClarty, W. H.	do			2 00	
McClelland, M.	do			4 00	
McKay, M.	do			22 00	
McIntosh, J.	do			5 00	
McLean, J.	do			8 00	
McLean, D. N.	do			116 00	
McElvie, Angus	do			2 00	
Nesbitt, R. G.	do			4 00	
Nicholson, F.	do			5 00	
O'Connor, Wm.	do			2 00	
O'Day, J.	do			2 00	
Orr, R. K.	do			4 00	
Place, J. W.	do			26 00	
Petrie, W.	do			28 00	
Pearen, F.	do			11 00	
Reid, S.	do			14 00	
Reid, S. J.	do			21 00	
Ramage, Chas.	do			13 00	
Ross, Jas. W.	do			14 00	
Randle, J. A.	do			1 00	
Smith, H. L.	do			10 00	
Symington, W.	do			20 00	
Spence, A.	do			12 00	
Sutherland, T.	do			20 00	
Smith, R. W.	do			3 00	
Stott, Mrs. A.	do			161 06	
Sherk, F. H.	do			5 00	
Scott, W. A.	do			8 00	
Swan, W. J.	do			2 00	
Sangster, C. H.	do			2 00	
Carried forward				1,901 44	3,102,794 46

REFUNDS—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		1,901 44		3,102,794 46
	EDUCATION—*Continued.*				
Shoff, H. A	Refund Subscription, Superannuation Fund		5 00		
Thompson, B. E	do		4 00		
Tindall, G. E	do		2 00		
Thompson, R	do		4 00		
Thompson, J. J	do		6 00		
Walker C	do		76 00		
				1,998 44	
	CROWN LANDS.				
J. McArthur	Refund on land in Admaston		10 00		
McMurrich, Urquhart & Austin	do Austin		392 00		
James Beatty	do Alfred, etc		10 00		
J. Rowe	do Bethune		50 00		
M. Johnston	do Cavendish		10 00		
J. W. Johnston	do do		20 00		
A. W. Ward	do Chaffey		19 13		
J. F. C. Holden	do Crooks		10 00		
A. Onellette	do Dover, East		1 00		
J. McCraney	do Dawn		10 00		
A. Miller	do Dalton		10 00		
N. Spicer	do Draper		62 67		
M. A. Morley	do Dawling		6 00		
Thos. Erwin	do Effingham		5 00		
J. Smith & Co	do do etc		30 00		
T. E. Salmon	do Franklin		4 52		
N. Kirchen	do Gillies		320 00		
A. J. Macdonald	do do		160 00		
W. Coe	do Grimsthorpe		100 00		
Gilmore & Co	do do		198 00		
G. A. Shaw	do Graham		38 00		
Alex. Scott	do Hilton		7 50		
R. Davies	do Halton		31 20		
S. Wilson	do Himsworth		23 41		
N. Hurl	do Hallan		59 40		

Rathbun Co	do	Kennedy and Hinchinbrooke		20 00		
G. T. Marks	do	Lamb Island		100 00		
A. Stewart	do	Lount		31		
James Clark	do	Lake Nipissing		125 00		
W. Keller	do	Monmouth		25 00		
J. C. Smith	do	May		628 00		
J. Cozens	do	Michipicoten Island		325 00		
T. Malvey	do	McKim		274 00		
C. Banks	do	do		50 00		
D. Currie	do	Nottawasaga		50 00		
Ira Mayhew	do	Nipissing		47 41		
W. Wilson	do	Owen Sound		20 00		
W. Arnold	do	O'Connor		160 00		
T. Hodgins	do	Proton		60 00		
G. Eaket	do	Paton		35 00		
O. Obelain	do	Pine Island		10 00		
J. E. Kett	do	Rama		10 00		
J. Purlin	do	Rayside		39 00		
J. Cozens	do	Ryan		86 40		
S. L. Lount	do	Rat Portage		10 00		
Spanish River Manf'g Co	do	Saulter		2 00		
R. H Cook	do	Schrieber		10 00		
R. A. Lyon	do	Sullivan		100 00		
J. D. Warde	do	Wood		31 00		
Ontario Lumber Co	Refunds of timber dues			6 30		
Albert Heath	do			13 35		
M. Brennan	do			36 82		
R. H. Klock & Co	do			40 22		
Alfred Hall	do			45 25		
Geo. Garret	do			9 36		
Bank of Toronto	do			13 00		
Georgian Bay Lumber Co	do			4 94		
Ross & Co	do			5 10		
A. Caldwell & Co	do			63 60		
McLachlin, Bros	do			9 80		
Mrs. C. Cumming	do			100 00		
Muskoka Mill & Lumber Co.	do			180 35		
McCarthy, Osler & Co	do			600 00		
P. J. Brace	do			20 00		
Victoria Harbor Lumber Co	do			61 87		
Brady & Hartley	do			3 60		
F. Gammon	Refund on mining location			10 00		
Russell & Co	do			35 00		
Wink & Cameron	do			320 80		
R. L. Russell	do			10 00		
A. W. Wiley	do			20 00		
A. G. LeQuier, *et al*	do			15 00		
Wink & Cameron	Refund survey of mining location			100 00		
A. Brown	Refund of ground rent			5 00		
	Carried forward			5,535 31	1,998 44	3,102,794 46

REFUNDS—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		5,535 31	1,998 44	3,102,794 46
	CROWN LANDS—*Continued.*				
A. Fraser	Refund of ground rent		291 00		
J. Cozens	Refund inspection		900 00		
A. Penos	do		240 00		
W. G. M. Thompson	Refund on maps		4 00		
W. D. Lont	Refund casual fee		10 00		
Corporation—					
Alice and Fraser	Refund on account of road allowance		144 26		
Anson	do		62 38		
Bangor, Wicklow and McClure	do		54 96		
Barrie	do		12 51		
Brougham	do		43 84		
Belmont and Methuen	do		169 63		
Burleigh, Arnstruther and Chandos	do		258 24		
Carden & Dalton	do		15 24		
Cardiff & Monmouth	do		89 17		
Cardwell	do		75 10		
Clarendon and Miller	do		62 60		
Carlow and Mayo	do		28 37		
Dalhousie, N, Sherbrooke and Lavant	do		26 09		
Darling	do		10 86		
Denbigh, Abinger and Ashby	do		667 68		
Dungannon and Farraday	do		130 15		
Elizaver and Grimsthorpe	do		472 05		
Ferris	do		66 26		
Foley	do		67 20		
Galway and Cavendish	do		212 12		
Glamorgan	do		201 19		
Griffith and Matawatchan	do		54 38		
Hagarty, Jones, Sherwood, Richards and Burns	do		183 88		
Harvey	do		31 07		
Himsworth	do		15 03		

Humphrey	do			85 54		
Kalalar, Anglesea and Effingham	do			559 96		
Kennebec	do			9 54		
Laxton and Digby	do			98		
Lutterworth and Hindon	do			35 27		
Limerick and Cashel	do			84 27		
Marmora & Lake	do			31 35		
Medora and Wood	do			144 30		
Monteagle and Herchel	do			43 46		
Morrison	do			21 03		
Muskoka	do			31 72		
McDougall	do			2 24		
McKellar	do			24 01		
McLean and Ridout	do			97 20		
Oakley and Draper	do			243 97		
Olden	do			5 32		
Orillia and Matchedash	do			559 25		
Oso	do			30		
Palmerston and S. Canonto	do			145 71		
Radcliffe and Raglan	do			87 03		
Ryde	do			25 70		
Sheffield	do			65		
Sherbourne	do			164 41		
Snowdon	do			296 85		
Stanhope	do			2 25		
Stisted	do			6 67		
Strong	do			39 14		
Tudor and Wollaston	do			135 46		
					13,018 15	
	DRAINAGE DEBENTURES					
Treasurer, Township Ekfrd	Accrued interest on debentures purchased				256 24	
	LAND IMPROVEMENT FUND.					
Townships:						
Admaston	Allowance under 16 Vic. Cap. 159, from proceeds Crown Lands		16 92			
Bedford	do	do	2 59			
Belmont	do	do	48 38			
Bromley	do	do	1 63			
Carrick	do	do	34 04			
Culross	do	do	8 99			
Carden	do	do	90			
Greenock	do	do	11 31			
Huntley	do	do	9 40			
	Carried forward		134 19		15,272 83	3,102,794 46

REFUNDS—*Concluded.*—STATUTE CONSOLIDATION.—MISCELLANEOUS EXPENDITURE.

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought fovward	134 19		15,272 83	3,102,794 46
	LAND IMPROVEMENT FUND—*Continued.*				
Townships:					
Howick	Allowance under 16 Vic. Cap. 159, from proceeds Crown Lands	76 74			
Kinloss	do do	49 08			
Luther, East	do do	45 50			
Luther, West	do do	71 64			
Minto	do do	21 38			
Packenham	do do	3 24			
Sherbrooke, South	do do	4 04			
Stafford	do do	13 16			
			418 97		
Arran	Allowance under 16 Vic. Cap. 159, from proceeds Common School Lands	105 70			
Ashfield	do do	193 30			
Arthur	do do	66 95			
Brant	do do	29 67			
Bruce	do do	140 36			
Bentinck	do do	349 77			
Derby	do do	64 62			
Elderslie	do do	122 22			
Egremont	do do	263 51			
Elma	do do	49 99			
Glenelg	do do	104 86			
Huron	do do	169 45			
Holland	do do	47 67			
Howick	do do	53 52			
Normanby	do do	9 40			
Sangeen	do do	68 27			
Sullivan	do do	277 51			
Turnberry	do do	29 49			
			2,146 26		
Houghton	Allowance under 16 Vic. Cap. 159, from proceeds Grammar School Lands	55 53			
Proton	do do	131 28			
			186 81		
				2,752 04	
	Total Refunds				18,024 87

STATUTE CONSOLIDATION.

Miller & Richard	Type			247 93	
J. Notman	Stationery			25 92	
G. M. Rose	Postage stamps			120 00	
G. E. Thomas	Services			200 00	
T. Fitch	Services packing and distributing Statutes			27 00	
Express Co's.	Charges			71 90	
G. T. Railway Co	Freight charges			73 13	
C. P. Railway Co	do			12 09	
Rose Cartage Co	Cartage			4 00	
					781 97

MISCELLANEOUS EXPENDITURE.

CHARGES ON REVENUE.

British American Bank Note Company	Printing law stamps	190 68			
D. E. Cameron	Travelling expenses *re* law stamps	32 50			
Joshua Adams	Refund law stamps, paid in error	6 00			
F. McLean	do cancelled law stamps	2 90			
Meredith, Clark & Co	do do	2 90			
Bick & Code	do do	2 90	237 88		
Warwick & Sons	Printing licenses	724 67			
J. Notman	Stationery do	59 27			
E. Dickie	Services do	333 30			
Moss, Hoyle & Aylesworth	Legal services, Queen *v.* Boyle, licenses	29 57			
J. W. Manning	Travelling expenses inspecting do	89 38			
H. Totten	do do	7 15	1,243 34		
T. H. Bull	Refund interest, Algoma taxes	58			
J. A. Keefer	do	1 63			
T. Davies	do	1 09			
J. R. Ryan	do	1 25			
D. F. Burk	do	27			
Warwick & Sons	Printing and binding *re* Algoma taxes	19 02			
L. V. Percival	Services as clerk do	300 00			
W. Drummond	do do	28 00			
Jeffery Foote	do do	4 00			
Sundry newspapers	Advertising do	63 15	418 99		
E. F. B. Johnston	Registration fee, *re* mortgage blocks, Asylum lands	26 65			
Sundry newspapers	Advertising *re* Asylum lands	110 30	136 95		
	Carried forward		2,037 16		3,121,601 30

MISCELLANEOUS EXPENDITURE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		2,037 16		3,121,601 30
	CHARGES ON REVENUE—*Continued.*				
Bank Commerce	Charges for collection on debentures and interest		10 15		
F. Rogers	Refund registration fee and interest		4 40		
			2,051 71		
	Less refunds, on account of printing, etc, *re* licenses		831 20		
				1,220 51	
	CANADA TEMPERANCE ACT.				
J. W. Manning	Twelve months' salary as Chief Officer		1,400 00		
E. Dickie	Services as Clerk		368 96		
W. H. Spencer	Services and expenses as P. M. at Bracebridge		250 00		
Clark & Cameron	To pay certain legal expenses, County Victoria		750 00		
Delamere, Reesor & English,	Legal expenses, County Brant		501 29		
Rowsell & Hutchison	Copies of judgment		5 40		
Citizen Publishing Co	Copies of paper for Inspectors and subscriptions		96 00		
J. W. Manning	Travelling expenses		6 97		
				3,378 62	
	MUNICIPAL COMMISSION.				
Hon. T. W. Anglin	Services as Commissioner		1,900 00		
Warwick & Sons	Printing and binding report		119 25		
J. Notman	Stationery		103 57		
				2,122 82	
	MINING COMMISSION				
W. Cox	Services and Expenses as Commissioner		770 90		
J. Charlton	do do		366 34		
R. Bell, M.D	do do		985 99		
W. H. Merritt	do do		1,385 37		
A. Blue	Services as Commissioner and Secretary		500 00		
J. S. Monaghan	do Stenographer		135 00		

W. O. Gallaway	do tabulating report		75 00	
D. Boyle	do do		30 00	
Warwick & Sons	Printing		12 97	
J. Notman	Stationery		4 40	
National Electro Co	Electros for report		17 95	
Toronto Lithograph Co	Wood cuts *re* report		264 75	
do	Geological maps of Ontario		472 50	
M. Lough	Map and drawings for report		185 00	
W. Millichamp & Co	Rent of show cases		35 00	
C. P. R. Telegraph	Telegrams		1 30	
A. Blue	Travelling expenses, etc.		50 81	
Sundry newspapers	Advertising		8 75	
				5,302 03
	INDUSTRIAL SCHOOL MIMICO.			
Beverly Jones, Treasurer	Legislative grant			1,500 00
	MARRIAGE LICENSES.			
Warwick & Sons	Printing and binding		571 11	
G. M. Rose	Postage stamps		145 08	
J. B. McLachlan	To pay express charges, postage, etc.		17 00	
				733 19
	ONTARIO RIFLE ASSOCIATION.			
W. N. Alger, Treasurer	Legislative grant			1,000 00
	ONTARIO ARTILLERY ASSOCIATION.			
L. H. Irving, Secretary	Legislative grant			500 00
	EXPENSES OF ELECTIONS.			
J. Flintoft	Costs as Returning Officer, Lambton West		1,025 92	
Hon. A. McKellar	do Hamilton, City		20 75	
J. M. Delamere	Services *re* elections, 1888		25 00	
Warwick & Sons	Printing		141 59	
J. Notman	Stationery		30 70	
G. M. Rose	Postage stamps		10 00	
H. C. Dixon	do		10 00	
Express Co	Charges		10 00	
C. P. R. Telegraph	Messages		2 25	
				1,276 21
	Carried forward			17,033 38 3,121,601 30

MISCELLANEOUS EXPENDITURE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward			17,033 38	3,121,601 30
	REVISION OF VOTERS' LISTS.				
His Honour, Judge Kingsmill	Travelling expenses, Bruce		112 99		
do Jones	do Brant		34 35		
do McCarthy	do Dufferin		57 20		
do Hughes	do Elgin		6 32		
do Upper	do Haldimand		62 55		
do Dean	do Haliburton		52 00		
do Lazier	do Hastings		36 55		
do Fraleck	do do		169 20		
do Toms	do Huron		116 10		
do Bell	do Kent		17 10		
do Senkler	do Lanark		13 40		
do Reynolds	do Leeds and Grenville		110 10		
do Senkler	do Lincoln		66 35		
do Elliott	do Middlesex		21 00		
do Benson	do Northumberland and Durham		40 90		
do Dartnell	do Ontario		99 70		
do Burnham	do do		53 20		
do Finkle	do Oxford		7 00		
do Scott	do Peel		36 00		
do Woods	do Perth		66 80		
do Weller	do Peterboro'		9 90		
do Merrill	do Prince Edward		47 05		
do O'Brien	do Prescott and Russell		15 00		
do Ardagh	do Simcoe		204 55		
do Carman	do Stormont, Dundas, etc.		30 75		
do Lacourse	do Waterloo		65 20		
do Chadwick	do Wellington		3 30		
do Drew	do do		13 25		
do Sinclair	do Wentworth		26 00		
do Muir	do do		76 05		
do Morgan	do York		103 65		
C. W. Lount, S. M.	do Muskoka		160 40		
				1,933 91	
	GRATUITIES.				
Hon. T. B. Pardee	Allowance on retiring from position of Commissioner of Crown Lands		4,000 00		
J. McLachlan	do Clerk, Attorney General's Department		187 50		

Miss E. F. Stowe	do	Clerk, Crown Lands Department		187 50		
H. Hayes	do	Clerk, Public Institutions Office		350 00		
Hon. S. Smith	do	Inspector of Registry offices		1,500 00		
W. J. Mansell	do	Guard, Central Prison		500 00		
C. Long	do	do		66 67		
J. Burroughes	do	Fireman, Crown Lands Department		275 00		
P. Aylward	do	Sessional Messenger		200 00		
J. F. Way	do	Crown Timber Agent, Belleville		600 00		
Elizabeth Small	do	Attendant, London Asylum		181 25		
H. R. Macdonald	do	Janitor, Boys' Model School, Ottawa		200 00		
A. Parker	do	Cattleman, Experimental Farm		165 00		
Mrs. Margaret Muter	Allowance to family of late Professor Young, Chairman, committee Central Examiners			175 00		
Mrs. C. Scott	do	H. Scott, Baker, Kingston Asylum		397 20		
Mary Scully	do	P. Scully, Head Gardener and Caretaker, Parliament Buildings		400 00		
Mrs. M. O'Callaghan	do	F. P. O'Callaghan, General Clerk of Works		950 00		
W. Kelly	Further allowance ex-Warden, Penetanguishene Reformatory			400 00		
C. Rankin and J. Laughrin	In trust for G. Smith, allowance for injuries received while assisting Inspector of Surveys			500 00		
E. Talbot	Compensation for injuries received while working at sewage works, London Asylum			150 00		
					11,385 12	
	ARCHÆOLOGICAL RESEARCHES IN ONTARIO.					
J. Bain, Jr	Legislative grant				1,000 00	
	TELEPHONE SERVICE.					
Bell Telephone Co.	Rent of instruments			1,366 37		
Geo. Graham	Whisperphone			1 25		
					1,367 62	
	REMOVAL OF PATIENTS.					
P. Simser	Services and expenses			2,146 00		
J. Waddell	do			1,638 00		
Mrs. Johnston	do			2,275 00		
Miss S. Roether	do			13 35		
J. Notman	Stationery			3 55		
Mrs. Hubertus	Postage stamps			10 00		
C. P. Industries	Clothing for bailiffs			100 00		
McMaster, Darling & Co.	do			12 12		
F. Hall & Son	do			3 00		
W. & D. Dineen	do			46 00		
A. Smith	Waist belt and handcuffs			4 75		
T. Lalor	Repairing leg irons			1 75		
					6,283 52	
	Carried forward				39,003 55	3,121,601 30

MISCELLANEOUS EXPENDITURE—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward			39,003 55	3,121,601 30
	PRISONERS' AID SOCIETY.				
Prisoners' Aid Society	Legislative grant			1,000 00	
	SANITARY INVESTIGATIONS AND HEALTH CONFERENCES.				
J. J. Cassidy, M.D	Services and expenses, attending Sanitary Convention, Brockville		30 13		
H. P. Yeomans, M.D	do do		30 98		
H. M. McKay, M.D	do do		25 98		
J. D. Macdonald, M.D	do do		15 00		
F. Rae, M.D	Travelling expenses do		8 43		
J. D. Macdonald, M.D	do London, *re* sewage		25 00		
H. M. McKay, M.D	do do		6 92		
F. Rae, M.D	do do		14 50		
P. H. Bryce, M.D	do attending conferences, etc		125 65		
F. Rae, M.D	do attending American Health Conference		76 41		
C. W. Covernton, M.D	do inspecting sewage purification in England		50 00		
Hooper & Co	Chemicals *re* testing water		3 00		
Globe Printing Co	Advertising *re* Sanitary Convention		12 60		
				424 60	
	OUTBREAK OF EPIDEMICS.				
C. Caughill, M.D	Services and expenses, *re* outbreak of Diphtheria at Parry Sound		142 00		
C. A. Hodgetts, M.D	do do		464 80		
W. R. Wade, M.D	do do		331 08		
Elliot & Co	Chemicals do		196 66		
C. A. Hodgetts, M.D	Services and expense, *re* Smallpox outbreak, Fmgal		116 50		
P. H. Bryce, M.D	Travelling expenses do		21 30		
H. M. McKay, M.D	do do		13 83		
P. H. Bryce, M.D	do Cookstown and Cooksville *re* Diphtheria		11 45		
do	do Uxbridge and Sandford *re* Cerebro and spinal disease				
do	do of self and Mr. Blue *re* disease among horses, Kent		3 85		
	and Lambton		104 45		
do	do Hay cholera, Chatham		23 20		
McKesson & Robbins	Chemicals for investigation of diseases		10 50		
P. H. Bryce, M.D	To pay duty, and express charges on apparatus for Laboratory		17 45		
				1,457 07	

	UNIVERSITY COLLEGE—(LADIES DEPARTMENT).				
Miss L. Salter	Twelve months' salary as Matron			500 00	
	VACCINE FARM.				
Dr. J. Stewart	On account Legislative grant			125 00	
	EXPENSES, *RE* FACTORIES' ACT.				
J. R. Brown	Twelve months' salary as Inspector		1,000 00		
R. Barber	do do		1,000 00		
O. A. Rocque	do do		1,000 00		
J. R. Brown	Travelling expenses		501 65		
R. Barber	do		496 95		
O. A. Rocque	do		133 74		
Warwick & Sons	Printing and binding		216 93		
J. Notman	Stationery		5 71		
G. Edwards	Services		24 00		
Express Co	Charges		75		
				4,379 73	
	AMERICAN SCIENCE ASSOCIATION.				
J. Bain, Treasurer	Legislative grant			2,500 00	
	AMERICAN ASSOCIATION OF MINING ENGINEERS.				
Geo. Burn, Treasurer	Legislative grant		1,000 00		
	Less amount refunded		629 21		
				370 79	
	CINCINNATI EXHIBIT.				
D. Boyle	Services and expenses		280 35		
Hon. T. W. Anglin	Expenses and disbursements		74 00		
J. B. Baker	Oak cases	for minerals	188 00		
R. Carnochan	Tables	do	42 75		
J. R. Montague	Putting up screens	do	1 25		
B. Greening Wire Co.	Wire netting	do	32 00		
C. Schacht	Painting and glazing	do	39 75		
M. Johnston & Co.	Labels for specimens	do	2 50		
G. T. Railway Co.	Freight charges	do	20 00		
Express Co	Charges and duty	do	26 68		
B. Kennedy	Teaming	do	7 00		
J. Hamilton	Cleaning room, and packing	do	20 00		
	Carried forward		734 28	49,760 71	3,121,601 30

TO WHOM PAID.	SERVICE.	$ c.	$ c.		$ c.
	Brought forward		734 28	49,760 74	3,121,601 30
	CINCINNATI EXHIBIT—*Continued.*				
J. Notman	Packing boxes and stationery do		3 78		
P. O'Brien	To pay for loading wagons do		4 00		
W. B. Varley	To pay P. O. order do		15		
				742 21	
	UNPROVIDED ITEMS.				
Sundry persons	Services as messengers *re* Governor-General's reception		104 50		
E. J. Edwards	Cleaning and laying carpets do		15 75		
J. Chiltern	Cartage of flowers do		4 00		
Rose Cartage Co	do do		15 00		
Colonel Gillmor	To pay cab hire do		3 75		
R. Brown	Services *re* school book arbitration		221 00		
J. Bain, jr.	do do		221 00		
F. Nudel	Services as shorthand writer do		100 00		
G. E. Thomas	Services preparing expert statement do		100 00		
Judge Morgan	Services do		442 00		
L. McCorkindale	do as housekeeper do		44 00		
McCarthy, Osler & Co	Legal services do		335 00		
Kerr, McDonald & Co	do do		78 13		
Miller & Duncan	Services and disbursements do		475 33		
Rev. A. H. Reynar	Services inspecting and reporting *re* Commission Frenchand German schools		850 00		
Rev. D. D. McLeod	do do		850 00		
J. J. Tilley	do do		425 00		
O. Dufort	Services do		52 50		
T. Pearce	do do		14 00		
J. C. Morgan	do do		7 00		
W. Alexander	do do		7 00		
W. M. Nichols	do do		7 00		
T. Girardot	do do		35 00		
J. J. Tilley	Expenses and disbursements do		1,238 55		

Copp, Clark Co.	Books do		6 38		
Warwick & Sons	Printing *re* arbitration, Ontario and Quebec		117 55		
Verral Cab Co.	Cab hire do		3 25		
J. P. McDonell	Travelling expenses *re* boundary		27 25		
J. Notman	Stationery do		4 82		
Verral Cab Co.	Cab hire do		75		
G. N. W. Telegraph Co.	Telegrams do		114 73		
Blake, Lash & Cassels	Legal services Queen v. Holt, *re* water lots, Niagara River		350 00		
W. Lount	do Ontario Government v. insurance companies		160 00		
E. Irving	do do		460 00		
Warwick & Sons	Printing *re* Upper Canada Land Improvement Fund		60 44		
London Fire Brigade	Allowance *re* services asylum fire		200 00		
Guelph Fire Brigade	do Ex. Farm Buildings fire		75 00		
Lancashire Insurance Co.	Premium on insurance Farm Buildings, Agricultural College, Guelph		75 00		
Royal Insurance Co.	do do		75 00		
F. A. T. Dunbar	Bust of Colonel Gzowski		100 00		
C. H. Clarke, M.D	Medical attendance, plumber's assistant		25 00		
Geo. Craig	Services copying evidence *re* report of investigation Homewood Retreat		10 00		
E. B. Borron	Accountable warrants, exploration of Northern Nipissing		2,000 00		
				9,510 68	
	Total Miscellaneous Expenditure				60,013 63
	Total expenditure under Supply Bill				3,181,614 93

RAILWAY SUBSIDY FUND.

(Authority for payment 35 Vic., cap. 24, and 37 Vic., cap. 37.)

Canada Southern	On account of grant in aid of lines from St. Clair Junction to St. Thomas, 62,901 miles.				
	Payments due 30th June, 1889	6,113 98			
	do 31st December, 1889	6,113 98			
			12,227 96		
Toronto, Grey & Bruce	On account of grant in aid of lines from Orangeville to Owen Sound, and Toronto to Weston, 82.079 miles.				
	Payments due 30th June, 1889	4,404 56			
	do 31st December, 1889	4,404 56			
			8,809 12		
Midland Railway	On account of grant in aid of lines from Orillia to Midland Bay, 31.13 miles.				
	Payments due 30th June, 1889	3,732 11			
	do 31st December, 1889	3,732 11			
			7,464 22		
	Carried forward		28,501 30		3,181,614 93

RAILWAY SUBSIDY FUND—*Continued.*

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward	.....	28,501 30	.....	3,181,614 93
	RAILWAY SUBSIDY FUND—*Continued.*				
London, Huron & Bruce	On account of grant in aid of lines from London Junction to Wingham Junction, 69.146 miles.				
	Payments due 30th June, 1889	6,720 99			
	do 31st December, 1889	6,720 99			
			13,441 98		
Brantford, Norfolk & Port Burwell	On account of grant in aid of lines from Brantford to Tilsonburg, 33.27 miles.				
	Payments due 30th June, 1889	3,233 84			
	do 31st December, 1889	3,233 84			
			6,467 68		
Victoria Railway	On account of grant in aid of lines from Lindsay to Kinmount, 33.442 miles.				
	Payments due 30th June, 1889	4,875 84			
	do 31st December, 1889	4,875 84			
			9,751 68		
Hamilton & North Western	On account of grant in aid of lines from Hamilton to Barrie, and Clarksville to Collingwood, 117.098.				
	Payments due 30th June, 1889	17,415 92			
	do 31st December, 1889	17,415 92			
			34,831 84		
Credit Valley	On account of grant in aid of lines from Toronto to Brock Road, and Streetsville to Alton.				
	Payments due 30th June, 1889	8,802 07			
	do 31st December, 1889	8,802 07			
			17,604 14		
Grand Junction	On account of grant in aid of lines from Sterling to Ashburnham 45.86 miles.				
	Payments due 30th June, 1889	3,967 80			
	do 31st December, 1889	3,967 80			
			7,935 60		
Prince Edward County Railway	On account of grant in aid of lines from Picton to Trenton, 32 miles.				
	Payments due 30th June, 1889	3,888 00			
	do 31st December, 1889	3,888 00			
			7,776 00		

Canada Atlantic Railway....	On account of grant in aid of lines from the boundary line to Ottawa, 65.72 miles.				
	Payments due 30th June, 1889	5,686 09			
	do 31st December, 1889	5,686 09			
			11,372 18		
				137,682 40	
	(Authority for payment, 39 Vic., cap. 22, and 42 Vic., cap. 28.)				
Credit Valley Railway.....	On account of grant in aid of lines from Brock Road to Ingersoll, and from Cataract to Elora.				
	Payments due 30th June, 1889	4,499 04			
	do 31st December, 1889	4,499 04			
			8,998 08		
Belleville and North Hastings Railway.....	On account of grant in aid of lines from Grand Junction Railway to Moore Mine, 22 miles.				
	Payments due 30th June, 1889	2,855 16			
	do 31st December, 1889	2,855 16			
			5,710 32		
Grand Junction Railway.....	On account of grant in aid of lines from Sterling to Ashburnham, 15.86 miles.				
	Payments due 30th June, 1889	1,983 89			
	do 31st December, 1889	1,983 89			
			3,967 78		
Canada Atlantic Railway	On account of grant in aid of lines from the boundary line to Ottawa, 65.72 miles.				
	Payments due 30th June, 1889	2,843 05			
	do 31st December, 1889	2,843 05			
			5,686 10		
				24,362 28	
	(Authority for payment, 40 Vic., cap. 24.)				
Victoria Railway.....	On account of grant in aid of lines from Kinmount to Haliburton, 22.31 miles.				
	Payments due 30th June, 1889	7,721 04			
	do 31st December, 1889	7,721 04			
			15,442 08		
Whitby, Port Perry and Lindsay Railway.....	On account of grant in aid of lines from Port Perry to Lindsay, 25.945 miles.				
	Payments due 30th June, 1889	2,244 76			
	do 31st December, 1889	2,244 76			
			4,489 52		
Prince Arthur's Landing and Kaministiqua Railway...	On account of grant in aid of lines from Prince Arthur's Landing to Fort William, 5.995 miles.				
	Payments due 30th June, 1889	518 68			
	do 31st December, 1889	518 68			
			1,037 36		
	Carried forward		20,968 96	162,044 68	3,181,614 93

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward		20,968 96	162,044 68	3,181,614 93
	RAILWAY SUBSIDY FUND—*Continued.*				
Credit Valley Railway	On account of grant in aid of lines from Toronto to Ingersoll, Streetsville to Alton and Cataract to Elora, 151.857 miles.				
	Payments due 30th June, 1889	6,621 41			
	do 31st December, 1889	6,621 41			
			13,242 82		
Kingston and Pembroke Railway	On account of grant in aid of lines from Mississippi to Madawaska River, 28.42 miles.				
	Payments due 30th June, 1889	9,835 58			
	do 31st December, 1889	9,835 58			
			19,671 16		
Canada Atlantic Railway	On account of grant in aid of lines from the boundary limit to Ottawa, 65.72 miles.				
	Payments due 30th June, 1889	2,843 05			
	do 31st December, 1889	2,843 05			
			5,686 10		
				59,569 04	
	(Authority for payment, 41 Vic. cap. 16.)				
Hamilton & North-Western	On account of grant in aid of lines from Jarvis to Port Dover, 8.975 miles.				
	Payments due 30th June, 1889	776 51			
	do 31st December, 1889	776 51			
			1,553 02		
North Simcoe Railway	On account of grant in aid of lines from Penetanguishene to Harrison's Crossings, 33.313 miles.				
	Payments due 30th June, 1889	3,606 04			
	do 31st December, 1889	3,606 04			
			7,212 08		
				8,765 10	
	(Authority for payment, 44 Vic. cap. 23.)				
Grand Trunk, Georgian Bay and Lake Erie	On account of grant in aid of lines from Harriston to Wiarton, and Mount Forest to Durham, 78.51 miles.				
	Payments due 30th June, 1889	5,746 65			
	do 31st December, 1889	5,746 65			
			11,493 30		

Erie and Huron Railway....	On account of grant in aid of lines from Rondeau to Wallaceburg, 39.74 miles				
	Payments due 30th June, 1889	3,055 01			
	do 31st December, 1889	3,055 01			
			6,110 02		
				17,603 32	
	Total Aid to Railways				247,982 14
	ANNUITIES.				
	(Authority for payment, 47 Vic. cap. 31.)			26,100 00	
Treasurer—				26,100 00	
Ontario	To pay Annuity Certificates, due 30th June, 1889				52,200 00
do	do do 31st December, 1889				
	DRAINAGE DEBENTURES (MUNICIPAL).				
	(Authority for payment, 36 Vic. cap. 3, and 37 Vic. cap. 20.)				
The Treasurer—				245 00	
Bosanquet	Debentures issued by the Municipality for the Construction of Drainage Works			617 50	
Ekfrid	do do do			2,100 00	
Elma	do do do			6,920 00	
Flamboro' West	do do do			2,553 00	
Logan	do do do			1,678 00	
Moore	do do do			448 00	
Zorra East	do do do			3,166 38	
Zorra West	do do do				17,727 88
	TILE DRAINAGE.				
The Treasurer					
	Debentures issued by the Municipality for the Construction of Tile Drainage Works			2,400 00	
Aldborough	do do do			600 00	
Bosanquet	do do do			800 00	
Moore	do do do			500 00	
Ops	do do do			100 00	
Orford	do do do			300 00	
Plympton	do do do			700 00	
Sarnia	do do do			1,200 00	
Warwick	do do do			2,000 00	
Waterloo	do do do			300 00	
Yarmouth	do do do				8,900 00
	Carried forward				3,508,424 95

TO WHOM PAID.	SERVICE.	$ c.	$ c.	$ c.	$ c.
	Brought forward				3,508,424 95
	NEW PARLIAMENT BUILDINGS.				
	(Authority for payment, 43 Vic. cap. 2, and 48 Vic. cap. 6.)				
L. Yorke	On account contract, masonry			15,967 40	
do	do carpentry			174 12	
St. Lawrence Foundry Co	do ironwork			17,187 61	
Estate of L. Yorke	do carpentry			6,397 08	
Carroll, Gaylord & Vick	do masonry			69,865 26	
Central Prison	Brick			30,000 00	
R. A. Waite	Services			3,500 00	
J. G. Ramsey & Co	Ferro-prussiate			5 50	
Registrar City of Toronto	Registration fee			4 05	
do Co. Peel	do			6 53	
Canadian Express Co	Express charges			18 70	
M. Wilson	Travelling expenses			16 70	
A. M. Dymond	do			2 95	
F. P. O'Callaghan	do			2 25	
Sundry newspapers	Advertising, *re* tenders			19 20	
					143,167 35
	SUPPLEMENTARY STATEMENT.				
	Total expenditure to 31st December, 1889, with respect to New Parliament Buildings :—				
	L. Yorke, on account for masonry	$260,320 77			
	Carroll, Gaylord & Vick, on contract for masonry	69,865 26			
	L. Yorke, on contract for carpentry and iron work	8,705 53			
	do do estate do	6,397 08			
	do do bricks furnished	12,037 05			
	Central Prison do	30,000 00			

	St. Lawrence foundry on contract for iron work	$27,206 85					
	Payments to Mr. Waite as architect	16,000 00					
	Sundry other expenditures, *re* competitive plans, water mains, drains, advertising tenders, etc., etc	21,281 37					
	Toronto University, *re* old asylum property	30,000 00					
		481,813 91					
	Total receipts from sale of land authorized by 43 Vic. cap. 2.	167,105 69					
	Less expenses *re* sale	1,258 06					
		$165,847 63					
	WIDOWS' PENSIONS.						
Treasurer — Ontario	To pay pensions						1,764 07
	Total Expenditure						3,653,356 37

C. H. SPROULE,
Provincial Auditor.

Provincial Auditor's Office,
Toronto, January 31st, 1890.

No. 13.

STATEMENT OF EXPENDITURE by the Treasurer of the Province of Ontario, showing the amounts Unexpended and Over-expended during the last twelve months ended 31st December, 1889.

SERVICE.	SUB-SERVICE.	Estimated Expenditure.	Expended.	Unexpended.	Over Expended.	Overdrafts of Appropriations.
Civil Government	Government House—expenses	1,950 00	1,950 00			
	Lieutenant-Governor's office—salaries	2,480 00	2,480 00			
	do expenses	1,500 00	1,500 00			
	Attorney Generals Department—salaries	14,650 00	14,650 00			
	do expenses	2,630 00	2,452 94	177 06		
	Education Department—salaries	19,400 00	19,400 00			
	do expenses	1,850 00	1,865 96		15 96	15 96
	Crown Lands Department—salaries	39,700 00	39,716 00		16 00	
	do expenses	9,600 00	9,677 79		77 79	93 79
	Public Works Department—salaries	17,600 00	17,600 00			
	do expenses	1,800 00	1,575 87	224 13		
	Treasury Department—salaries	11,550 00	11,550 00			
	do expenses	2,650 00	1,961 90	688 10		
	Provincial Auditor's Office—salaries	5,300 00	5,300 00			
	do expenses	800 00	798 25	1 75		
	Public Institutions—salaries	8,050 00	7,749 99	300 01		
	do expenses	2,100 00	2,391 35		291 35	
	Agricultural Department—salaries	13,125 00	13,125 00			
	do expenses	1,450 00	1,375 73	74 27		
	Registrar General's Department—salaries	6,550 00	6,550 00			
	do expenses	3,375 00	3,172 41	202 59		
	Immigration Department—salaries	1,300 00	1,300 00			
	do expenses	300 00	192 66	107 34		
	Secretary & Registrar's Department—salaries	14,750 00	14,750 00			
	do expenses	3,460 00	3,868 21		408 21	408 21
	License Branch—salaries	6,900 00	6,900 00			
	do expenses	650 00	680 30		30 30	30 30
	Board of Health—salaries	4,075 00	4,075 00			
	do expenses	2,900 00	2,678 32	221 68		
		202,445 00	201,287 68	1,996 93	839 61	
	Official Gazette	3,000 00	1,964 62	1,035 38		
	Queen's Printer—salaries	2,300 00	2,300 00			

	do expenses	100 00	191 16	.....	91 16
	Inspection Registry Offices	1,900 00	1,900 00	.....	.....
	do Insurance do salaries	2,900 00	2,900 00	.....	.....
	do do do expenses	500 00	1,218 22	.....	718 22
		10,700 00	10,471 00	1,035 38	809 38
	Total Civil Government	213,145 00	211,761 68	3,032 31	1,648 99
Legislation	Salaries	13,850 00	13,600 00	250 00	.....
	Sessional Clerks, etc	10,000 00	8,984 75	1,015 25	.....
	Postages	3,200 00	3,857 46	.....	657 46
	Stationery, Printing and Binding	26,500 00	25,854 86	645 14	.....
	Printing Bills, etc	4,000 00	3,125 89	574 11	.....
	Library	3,000 00	2,679 27	320 73	.....
	Indemnity to Members	57,000 00	55,378 00	1,622 00	.....
	Expenses	4,000 00	6,158 46	.....	2,158 46
	Total Legislation	121,550 00	119,938 69	4,427 23	2,815 92
Administration of Justice	Supreme Court	23,900 00	23,796 27	103 73	.....
	Appeal Court	1,930 00	1,858 47	71 53	.....
	High Court	5,600 00	5,852 04	.....	252 04
	Chancery Division	12,070 00	11,637 23	432 77	.....
	Queen's Bench do	7,156 00	6,955 65	200 35	.....
	Common Pleas do	5,675 00	5,449 25	225 75	.....
	Surrogate Judges, etc	25,535 51	24,567 49	968 02	.....
	Crown Counsel Prosecutions	10,000 00	8,833 54	1,166 46	.....
	Criminal Justice	145,000 00	144,770 01	229 99	.....
	Legal Offices	4,000 00	4,072 74	.....	72 74
	Division Courts	4,650 00	4,716 36	.....	66 36
	Special Services	4,900 00	3,385 88	1,514 12	.....
	Sheriffs' fees	6,000 00	5,075 94	924 06	.....
	Seals and other contingencies	300 00	508 20	.....	208 20
	Shorthand reporters	.....	1,695 84	.....	1,695 84
	Litigation Constitutional questions	12,000 00	5,436 44	6,563 56	.....
	Grouped counties	1,200 00	1,192 65	7 35	.....
	Ditches and Watercourses Act	500 00	251 95	248 05	.....
	Deputy Clerks, etc	17,200 00	17,150 00	50 00	.....
	do Local Registrars	5,500 00	6,150 00	.....	650 00
	Land Titles Act	5,500 00	6,889 03	.....	1,389 03
	Local Masters of Titles	2,650 00	2,940 12	.....	290 12
	District of Algoma	18,300 00	22,010 27	.....	3,710 27
	do Thunder Bay	10,050 00	8,936 24	1,113 76	.....
	do Rainy River	11,050 00	9,341 27	1,708 73	.....
	Carried forward	340,666 51	333,172 88	15,528 23	8,334 60

No. 13.—STATEMENT, ETC.—*Continued.*

SERVICE.	SUB-SERVICE.	Estimated Expenditure.	Expenditure.	Unexpended.	Over Expended.	Overdrafts. of Appropriations.
		$ c.	$ c.	$ c.	$ c.	$ c.
	Brought forward	340,666 51	333,472 88	15,528 23	8,334 60	
Administration of Justice—*Continued*	District of Nipissing	7,400 00	6,803 97	596 03		
	do Muskoka	4,650 00	9,137 37		4,487 37	
	do Parry Sound	4,950 00	6,270 94		1,320 94	
	do Haliburton	150 00	422 05		272 05	
	do Manitoulin	2,750 00	1,531 32	1,218 68		
	Provincial Police	9,200 00	8,613 71	586 29		
	Total Administration of Justice	369,766 51	366,252 24	17,929 23	14,414 96	
Education	Public and Separate Schools	244,305 62	244,032 56	273 06		
	Poor Schools	25,000 00	24,931 93	68 07		
	Model Schools	8,700 00	8,699 71	29		
	Teachers' Institutes	2,900 00	2,898 88	1 12		
	High Schools and Collegiate Institutes	97,000 00	96,364 45	635 55		
	Training Institutes	2,100 00	2,099 59	41		
	Inspection Normal, High, Model, Public and Separate Schools	50,950 00	50,950 00			
	Departmental Examinations	8,200 00	12,435 99		4,235 99	4,235 99
	Normal and Model Schools, Toronto—salaries	19,110 00	19,180 00		70 00	
	do expenses	1,950 00	1,924 15	25 85		44 15
	do Ottawa—salaries	18,290 00	18,290 00			
	do expenses	2,100 00	2,100 00			
	Museum and Library—salaries	3,300 00	3,300 00			
	do expenses	1,650 00	1,647 76	2 24		
	School Practical Science—salaries	6,100 00	6,100 00			
	do expenses	2,422 00	1,841 45	580 55		
	Mechanics' Institutes	32,000 00	31,428 57	571 43		
	Art Schools	4,500 00	4,915 89		415 89	
	Literary and Scientific	2,000 00	2,100 00		100 00	
	Miscellaneous	2,500 00	2,632 39		132 39	132 39
	Superannuated Teachers	59,300 00	60,365 00		1,065 00	1,065 00
	Total Education	594,377 62	598,238 32	2,158 57	6,019 27	

Public Institutions Maintenance	Toronto Asylum	103,157 00	102,048 99	1,108 01		
	Mimico Branch	5,530 00		5,530 00		
	London Asylum	127,354 00	126,941 04	412 96		
	Kingston do	87,505 00	87,349 56	155 44		
	Hamilton do	118,967 00	118,882 41	84 59		
	Orillia do	49,657 00	44,830 64	4,826 36		
	Central Prison, Toronto	67,615 00	63,865 92	3,749 08		
	Central Prison Industries	27,380 00	34,783 04		7,403 04	3,653 96
	Boys' Reformatory	42,210 00	41,908 20	301 80		
	Deaf and Dumb Institute	40,727 16	40,718 50	8 66		
	Blind Institute	34,866 00	34,865 99	01		
	Mercer Reformatory	31,526 00	32,715 32		1,189 32	1,189 32
	Total Public Institutions Maintenance	736,494 16	728,909 61	16,176 91	8,592 36	
Immigration	Agencies in Europe	3,900 00	3,889 00	11 00		
	do Ontario	550 00	648 00		98 00	
	Incidentals	2,400 00	2,312 90	87 10		
	Total Immigration	6,850 00	6,849 90	98 10	98 00	
Agriculture	Electoral Division Societies	64,150 00	61,975 00	2,175 00		
	Grants to Associations	19,900 00	19,900 00			
	Farmers' Institutes	4,350 00	5,247 47		897 47	
	Incidentals	4,500 00	5,171 45		671 45	
	Forestry	2,000 00	1,835 29	164 71		
	Tree Planting	1,000 00	364 97	635 03		
	Bureau of Statistics	6,500 00	4,106 17	2,393 83		
	Agricultural College	20,985 00	17,654 43	3,330 57		
	Experimental Farm	20,602 00	22,532 80		1,930 80	
	Total Agriculture	143,987 00	138,787 58	8,699 14	3,499 72	
Hospitals and Charities		120,528 66	120,402 48	126 18		

No. 13.—Statement, Etc.—*Continued.*

SERVICE.	SUB-SERVICE.	Estimated Expenditure.	Expenditure.	Unexpended.	Over Expended.	Overdrafts of Appropriations.
		$ c.	$ c.	$ c.	$ c.	$ c.
Repairs and Maintenance	Government House	8,154 31	8,142 26	12 05		
	Main Building	10,463 25	11,735 30		1,272 05	1,272 05
	West Wing	3,363 25	3,437 22		73 97	73 97
	East Wing	4,613 25	4,400 80	212 45		
	Educational Buildings	9,674 05	9,498 35	175 70		
	Simcoe Street Premises	2,741 00	2,847 03		106 03	106 03
	Wellington Street Premises	1,550 00	1,635 78		85 78	85 78
	Miscellaneous	3,094 00	3,044 00	50 00		
	Normal School, Ottawa	3,350 00	3,318 13	31 87		
	School Practical Science	1,200 00	1,182 69	17 31		
	Agricultural College	5,950 00	5,789 38	160 62		
	do Hall	650 00	607 85	42 15		
	Osgoode Hall	9,337 55	9,093 81	243 74		
	Total Repairs and Maintenance	64,140 66	64,732 60	945 89	1,537 83	
Public Buildings	Toronto Asylum	1,500 00	903 80	596 20		
	do Inspector	10,220 00	8,917 76	1,302 24		
	Mimico Branch	203,500 00	166,365 42	37,134 58		
	do Inspector	7,504 00	5,697 52	1,806 48		
	London Asylum	21,500 00	30,797 91		9,297 91	
	do Inspector	6,035 00	5,098 17	936 83		8,361 08
	Hamilton Asylum	24,800 00	15,102 56	9,697 44		
	do Inspector	7,554 00	6,280 47	1,273 53		
	Kingston Asylum	3,000 00	2,684 46	315 54		
	do Inspector	2,219 00	943 67	1,275 33		
	Branch Asylum, Kingston	200 00		200 00		
	Orillia Asylum	62,400 00	56,464 03	5,935 97		
	do Inspector	1,950 00	1,132 27	817 73		
	Boys' Reformatory	4,000 00	3,717 17	282 83		
	do Inspector	2,130 00	1,008 68	1,121 32		
	Mercer Reformatory	34,496 90	33,672 28	824 62		
	do Inspector	964 00	590 55	373 45		
	Central Prison	500 00	190 20	309 80		
	do Inspector	81,862 00	63,184 85	18,677 15		

	Deaf and Dumb Institute	2,000 00	1,980 27	19 73		
	do Inspector	4,725 00	4,717 18	7 82		
	Blind Institute	2,300 00	11 95	2,288 05		
	do Inspector	1,750 00	1,748 50	1 50		
	Agricultural College	24,600 00	27,150 61	.....	2,550 61	
	Experimental Farm	2,580 00	1,830 03	749 97	.....	1,800 64
	Educational Buildings	7,000 00	7,000 00	.....		
	Normal School, Ottawa	3,800 00	2,941 70	858 30		
	School of Science	52,000 00	33,117 31	18,882 69		
	Osgoode Hall	2,500 00	3,691 18	.....	1,191 18	1,191 18
	Government House	3,000 00	2,712 00	288 00		
	Algoma District	13,000 00	12,794 90	205 10		
	Thunder Bay District	500 00	525 08	.....	25 08	25 08
	Muskoka do	1,100 00	430 68	669 32		
	Parry Sound do	7,500 00	7,738 49	.....	238 49	238 49
	Nipissing do	6,000 00	6,529 50	.....	529 50	529 50
	Rainy River do	1,500 00	542 44	957 56		
	Brock's Monument	200 00	193 80	6 20		
	Total Public Buildings	612,389 90	518,407 39	107,815 28	13,832 77	
Public Works	Peninsula Creek Improvement	708 00	717 07	.....	9 07	
	Scugog River Works	2,212 00	2,083 52	128 48		
	Maganetawan do	679 00	279 36	399 64		
	Muskoka Lakes do	2,583 00	2,613 69	.....	30 69	
	Gull and Burnt River Works	300 00	300 00	.....		
	Georgian Bay Channel	677 00	667 54	9 46		
	Kushog Lake Dam	300 00	300 00	.....		
	Mississippi River Improvement	1,500 00	1,464 35	35 65		
	Head River do	1,300 00	976 82	323 18		
	Maintenance, Locks, Dams, etc	7,500 00	7,117 99	382 01		
	Surveys, Inspections, etc	5,000 00	480 00	4,520 00		
	Lockmaster's Salaries	4,000 00	3,989 50	10 50		
	Ottawa R. Bridge	4,000 00	.....	4,000 00		
	Lake of Bays	500 00	581 82	.....	81 82	
	Muskrat River	1,000 00	.....	1,000 00	.....	
	River Beaudette	1,500 00	1,500 00	.....	.....	
	Total Public Works	33,759 00	23,071 66	10,808 92	121 58	
Colonization Roads	.....	103,750 00	103,666 63	83 37		

No. 13.—Statement, Etc.—*Continued.*

SERVICE.	SUB-SERVICE.	Estimated Expenditure.	Expenditure.	Unexpended.	Over Expended.	Overdrafts of Appropriations.
		$ c.	$ c.	$ c.	$ c.	$ c.
Charges on Crown Lands	Board of Surveyors	400 00	364 00	36 00		
	Agents' Salaries	25,000 00	28,521 24		3,521 24	
	Forest Ranging	22,000 00	29,666 16		7,666 16	
	Fire Ranging	15,000 00	8,684 27	6,315 73		
	Special Timber Inspection	3,000 00		3,000 00		
	Surveys	39,500 00	34,540 01	4,959 99		
	Exploration N. W. T	5,000 00		5,000 00		
	Forest Ranging do	3,000 00		3,000 00		
	Total charges on Crown Lands	112,900 00	101,775 68	22,311 72	11,187 40	
Refunds	Education	2,000 00	1,998 44	1 56		
	Crown Lands	16,500 00	13,018 15	3,481 85		
	Drainage Debentures		256 24		256 24	256 24
	Land Improvement Fund	2,752 04	2,752 04			
	Total Refunds	21,252 04	18,024 87	3,483 41	256 24	
Statute Consolidation		1,000 00	781 97	218 03		
Miscellaneous	Charges on Revenue	1,700 00	806 34	893 66		
	Canada Temperance Act	6,750 00	3,378 62	3,371 38		
	Municipal Commission	1,200 00	2,122 82		922 82	
	Mining Commission	3,650 00	5,302 03		1,652 03	
	Industrial School, Mimico	1,500 00	1,500 00			
	Marriage Licenses	500 00	733 19		233 19	
	Ontario Rifle Association	1,000 00	1,000 00			
	Ontario Artillery Association	500 00	500 00			
	Expenses Elections	1,000 00	1,276 21		276 21	
	Voters' Lists	2,000 00	1,933 91	66 09		

Gratuities	11,400 00	11,385 12	14 88		
Archæological Researches	1,000 00	1,000 00			
Telephone Service	1,300 00	1,367 62		67 62	
Removal Patients	6,000 00	6,283 52		283 52	
Prisoners' Aid Society	1,000 00	1,000 00			
Sanitary Investigations	1,000 00	424 60	575 40		
Outbreak Epidemics	2,200 00	1,457 07	742 93		
University College	500 00	500 00			
Vaccine Farm	250 00	125 00	125 00		
Factories' Act	4,500 00	4,379 73	120 27		
American Science Association	2,500 00	2,500 00			
do Association of Mining Engineers	1,000 00	370 79	629 21		
Cincinnati Exhibit	700 00	742 21		42 21	
Printing Unrepealed Acts	1,000 00		1,000 00		
Unprovided Items	50,000 00	9,924 85	40,075 15		
Total Miscellaneous	104,150 00	60,013 63	47,613 97	3,477 60	
Grand Totals	3,360,040 55	3,181,614 93	246,520 82	68,095 20	24,809 11
Aid to Railways		247,982 14			
Annuities		52,200 00			
Drainage Debentures (Municipal)		17,727 88			
Tile Drainage		8,900 00			
New Parliament Buildings		143,167 35			
Widows' Pensions		1,764 07			
Total Ependiture		3,053,356 37			

C. H. SPROULE,
Provincial Auditor.

Provincial Auditor's Office,
Toronto, 31st January, 1890.

No. 14.

COMPARATIVE STATEMENT OF EXPENDITURE DURING THE YEARS 1888 AND 1889.

SERVICE.	SUB-SERVICE.	Expenditure, 1888.		Expenditure, 1889.	
		$ c.	$ c.	$ c.	$ c.
Civil Government	Government House—expenses	1,850 00		1,950 00	
	Lieutenant-Governor's Office—salaries	2,480 00		2,480 00	
	do expenses	1,506 53		1,500 00	
	Attorney-General's Department—salaries	14,300 00		14,650 00	
	do expenses	2,613 46		2,452 94	
	Education Department—salaries	19,550 00		19,400 00	
	do expenses	1,837 94		1,865 96	
	Crown Lands Department—salaries	39,125 00		39,716 00	
	do expenses	9,811 57		9,677 79	
	Public Works Department—salaries	16,600 00		17,600 00	
	do expenses	1,799 74		1,575 87	
	Treasury Department—salaries	10,728 33		11,550 00	
	do expenses	4,208 66		1,961 30	
	Provincial Auditor's Office—salaries	5,100 00		5,300 00	
	do expenses	787 06		798 25	
	Public Institutions Department—salaries	7,650 00		7,749 99	
	do expenses	3,089 37		2,391 35	
	Agricultural Department—salaries	3,498 07		13,125 00	
	do expenses	.....		1,375 73	
	Registrar-General's Office—salaries	6,337 68		6,550 00	
	do expenses	3,574 20		3,172 41	
	Immigration Department—salaries	1,300 00		1,300 00	
	do expenses	217 50		192 66	
	Provincial Secretary's Department—salaries	14,450 00		14,750 00	
	do expenses	3,731 10		3,868 21	
	License and Administration of Justice Branch—salaries	6,306 00		6,900 00	
	do expenses	465 33		680 30	
	Provincial Board of Health—salaries	4,075 00		4,075 00	
	do expenses	2,261 91		2,678 32	
	Official *Gazette*	2,759 08		1,964 62	
	Queen's Printer's Office—salaries	2,300 00		2,300 00	
	do expenses	97 55		191 16	
	Inspection of Registry Offices	2,384 30		1,900 00	
	do Insurance Companies—salaries	2,700 00		2,900 00	
	do do expenses	1,189 86		1,218 22	
			200,685 24		211,761 68

Legislation	Salaries	12,950 00		13,600 00	
	Sessional Writers, Messengers and Pages	13,512 10		8,984 75	
	Postages and cost of House Post Office	3,524 40		3,857 46	
	Stationery, Printing and Binding	26,361 62		25,854 86	
	Printing Bills and distributing Statutes	4,346 46		3,425 89	
	Library	3,130 07		2,679 27	
	Indemnity to Members	56,101 60		55,378 00	
	Contingencies	7,101 52		6,158 46	
			127,030 77		119,938 69
Administration of Justice	Supreme Court of Judicature	24,148 62		23,796 27	
	Court of Appeal	1,695 01		1,858 47	
	High Court	4,185 79		5,852 04	
	Chancery Division	11,475 38		11,637 23	
	Queen's Bench Division	6,651 47		6,955 65	
	Common Pleas Division	5,103 67		5,449 25	
	Surrogate Judges and Local Masters	21,055 98		24,567 49	
	Crown Counsel Prosecutions	11,471 40		8,833 54	
	Administration of Criminal Justice	144,919 71		144,770 01	
	Inspection of Legal Offices	3,816 30		4,072 74	
	do Division Courts	4,273 38		4,716 36	
	Special services	3,335 75		3,385 88	
	Sheriffs' fees, etc	4,993 96		5,075 94	
	Seals and other contingencies	481 40		508 20	
	Registration books	211 65			
	Shorthand Reporters	10,700 00		1,695 84	
	Litigation Constitutional Questions	21,193 91		5,436 44	
	Grouped Counties	720 75		1,192 65	
	Ditches and Watercourses Act	303 24		251 95	
	Deputy Clerks of the Crown and Pleas	17,200 00		17,150 00	
	Local Registrars	6,050 00		6,150 00	
	Land Titles Act	5,258 47		6,889 03	
	Local Masters of Titles	1,523 05		2,910 12	
	District of Algoma	18,296 49		22,010 27	
	do Thunder Bay	9,674 75		8,936 24	
	do Rainy River	9,894 94		9,341 27	
	do Nipissing	7,415 53		6,803 97	
	do Muskoka	3,968 97		9,137 37	
	do Parry Sound	3,494 57		6,270 94	
	do Haliburton	150 00		422 05	
	do Manitoulin	2,322 15		1,581 32	
	Provincial Police	7,912 51		8,613 71	
			373,898 80		366,252 24
Education	Public and Separate Schools	238,362 18		244,032 56	
	Poor Schools	24,932 14		24,931 93	
	Model Schools	8,660 71		8,699 71	
	Teachers' Institutes	1,997 41		2,898 88	
	High Schools and Collegiate Institutes	92,100 00		96,364 45	

No. 14.—Comparative Statement—*Continued.*

SERVICE.	SUB-SERVICE.	Expenditure, 1888.		Expenditure, 1889.	
		$ c.	$ c.	$ c.	$ c.
Education—*Continued*	Training Institutes	2,100 00		2,099 59	
	Inspection of Normal, High and Model Schools	11,235 10		11,292 39	
	Inspection of Public and Separate Schools	39,565 70		39,657 61	
	Departmental Examinations	12,567 16		12,435 99	
	Normal and Model Schools, Toronto, salaries	18,312 50		19,180 00	
	do do expenses	1,304 53		1,924 15	
	do Ottawa, salaries	17,850 00		18,290 00	
	do do expenses	2,026 92		2,100 00	
	Museum and Library, salaries	2,966 00		3,300 00	
	do expenses	1,472 65		1,647 76	
	School of Practical Science, salaries	4,849 67		6,100 00	
	do expenses	1,929 16		1,841 45	
	Mechanics' Institutes	29,890 36		31,428 57	
	Art Schools	4,630 67		4,915 89	
	Literary and Scientific	2,000 00		2,100 00	
	Miscellaneous	2,422 44		2,632 39	
	Superannuated Teachers	58,290 00		60,365 00	
			579,465 30		598,238 32
Public Institutions' Maintenance	Toronto Asylum	103,613 43		102,048 99	
	London do	126,371 73		126,941 04	
	Kingston do	87,198 58		87,349 56	
	Hamilton do	113,275 07		118,882 41	
	Orillia do	47,681 60		44,830 64	
	Central Prison, Toronto	59,728 74		63,865 92	
	do Industries	32,305 62		34,783 04	
	Boys' Reformatory	43,362 09		41,908 20	
	Deaf and Dumb Institute	42,061 39		40,718 50	
	Blind Institute	35,232 07		34,865 99	
	Mercer Reformatory	30,772 37		32,715 32	
			721,602 69		728,909 61
Immigration			7,952 39	6,849 90	
Agriculture and Arts			137,054 46	138,787 58	

Hospitals and Charities			113,686 14		120,402 48
Repairs and Maintenance			69,229 54		64,732 60
Public Buildings			291,423 56		518,407 39
*Public Works			42,860 71		23,071 66
Colonization Roads			112,272 56		103,666 63
Charges on Crown Lands			96,734 47		101,775 68
Refunds	Education	3,596 97		1,998 44	
	Crown Lands	15,652 51		13,018 15	
	Municipaliter's Fund	4,834 51			
	Drainage Debentures			256 24	
	Land Improvement Fund	3,619 74		2,752 04	
			27,703 73		18,024 87
Statute Consolidation			31,394 99		781 97
Miscellaneous	Charges on Revenue	1,774 92		806 34	
	Canada Temperance Act	5,741 56		3,378 62	
	Municipal Commission	1,851 00		2,122 82	
	Mining do	3,898 84		5,302 03	
	Industrial School, Mimico	1,000 00		1,500 00	
	Marriage Licences	490 54		733 19	
	Ontario Rifle Association	1,000 00		1,000 00	
	Ontario Artillery Association	500 00		500 00	
	Expenses of Elections	4,067 00		1,276 21	
	do Contested Elections	465 14			
	Voter's Lists	911 91		1,933 91	
	Gratuities	19,507 36		11,385 12	
	Colonial and Indian Exhibition	191 40			
	Archæological Researches	1,000 00		1,000 00	
	Boundary Award	430 87			
	Telephone Service	1,195 41		1,367 62	
	Removal of Patients	8,481 27		6,283 52	
	Prisoners' Aid Society	1,000 00		1,000 00	
	Sanitary Investigations	257 05		424 60	
	Outbreak of Epidemics	758 16		1,457 07	
	University College (Ladies' Department)	500 00		500 00	
	Vaccine Farm	500 00		125 00	
	Factories' Act	4,245 47		4,379 73	
	Allowance to Attendant Hamilton, L. A	1,996 13			
	American Science Association			2,500 00	
	American Association of Mining Engineers			370 79	
	Cincinnati Exhibit			742 21	
	Unprovided Items	13,266 64		9,924 85	
			74,030 67		60,013 63

No. 14.—Comparative Statement—*Continued.*

SERVICE.	SUB-SERVICE.	Expenditure, 1888.		Expenditure, 1889.	
		$ c.	$ c.	$ c.	$ c.
Aid to Railways			247,982 14		247,982 15
Annuities			52,200 00		52,200 00
Drainage Debentures (Municipal)			47,684 92		17,727 88
Drainage Debentures (Tile)			11,100 00		8,900 00
New Parliament Buildings			159,203 23		143,167 35
Widows' Pensions			11,041 15		1,764 07
			3,536,248 46		3,653,356 37

C. H. SPROULE,
Provincial Auditor.

Provincial Auditor's Office,
Toronto, 31st January, 1890.

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